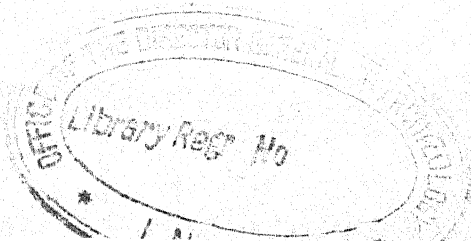


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LOCKE, HUME AND SHELLEY

BY

AMIYAKUMAR SEN, M.A.

1

INTRODUCTORY

“ It is most true that the majority of mankind are Christians only in name; their religion has no reality. So little, indeed, that they almost confess the world to be the only reason for their yet retaining their mummeries.” So wrote Shelley to Thomas Jefferson Hogg as early as May 17, 1811. In fact, in those days of cold intellectualism the common run of Christians were satisfied with a placid sort of belief in the tenets of their faith. They had no religious enthusiasm nor were they actuated by that intellectual honesty which can sacrifice the world for the sake of honest and sincere beliefs. Conformity was the great criterion of respectability and few had the courage to challenge the opinion of the world.

Shelley's own family belonged to this orthodox group. His father based his religious opinions on Paley and looked askance even at Locke. He had read Locke in his youth but had never been influenced by his standpoint.¹ He might allow the impossibility of preternatural interference by Providence, and, therefore, of the legendary miracles; but when his son sought to apply these very principles accepted by himself he would silence him with the equine argument ‘ I believe because I do believe.’² His mother, his sister, even his *fiancée*, living as they did in the midst of such an environment, could not but regard traditional principles

¹ Shelley, Letters (Jan. 7, 1811).

² „ „ (Jan. 11, 1811).

as sacred, and shrink from the slightest tinge of scepticism. It is only natural that the earliest literary works of the poet should be considerably influenced by this atmosphere of ideas. Both *Zastrozzi* and *St. Irvyne* are steeped in the traditional ideas of faith and morality. Shelley was now as orthodox as the commonest Christian of his age. He was eager to contemplate the works of God in order that he might pronounce them to be good. It is, according to him, only when the mind of man turns away from virtue that it cannot appreciate the wisdom and justice of Providence. "In proportion as human nature departs from virtue, so far are they also from being able to contemplate the wonderful operations, the mysterious ways of Providence."¹ Constancy in love,² the inviolability of the marriage bond,³ and the torments of impiety are familiar themes which the poet described with all the vehemence of orthodoxy. Left to solitude Matilda, the heroine of *Zastrozzi*, broods over her gloomy thoughts and, all on a sudden, acknowledges in her inmost soul the utter falsity of the arguments which had made her an unbeliever. Like the saints and martyrs of the days of early Christianity, Matilda also sees a vision and dreams a dream and her mystic vision shows unmistakable traces of the influence of orthodox ideals on the mind of the poet.

"Strangely brilliant and silver clouds seemed to flit before her sight; celestial music, enchanting as the harmony of the spheres, serenaded her soul, and, for an instant, her situation forgotten, she lay entranced. On a sudden the music ceased; the azure concavity of heaven opened at the zenith, and a Being whose countenance beamed with unutterable beneficence descended.

"It seemed to be clothed in a transparent robe of flowing silver; its eyes scintillated with superhuman brilliancy, whilst her dream imitating reality almost to exactness, caused the

¹ *Zastrozzi*, Chapter VIII.

² *Ibid*, Chapter VIII.

³ *Ibid*, Chapter XV.

entranced Matilda to suppose that it addressed her in these words.

“ Poor sinning Matilda ! repent, it is not yet too late—God’s mercy is unbounded. Repent, and thou mayest yet be saved.”¹

The entire atmosphere of this entrancing dream is reminiscent of Bunyan in his *Pilgrim’s Progress*. The call to repentance, the benign countenance of the Redeemer, the celestial music are all essentially orthodox.

Equally orthodox is the account that Shelley gave of the redemption of the penitent sinner. The agony of remorse, the fervent prayer for forgiveness and mercy, the tears of repentance and the tranquility that accompanies the belief that our prayers have been heard,—all belong to the hoary traditions of the Orthodox Christian Church. The description of the “ All-benevolent of Heaven ” ever responsive to the cry of the penitent heart is, certainly, a very faithful representation of the Merciful Father of Christianity.²

The same atmosphere persists in the next novel of Shelley, *St. Irvyne or the Rosicrucian*. Apart from orthodox social ideals on marriage and other institutions, what attracts the attention of the reader most is the lurid picture the poet drew of the consequences of impiety. Time and again, the youthful novelist spoke of the “ dreadful day of retribution ” when, in the right orthodox manner, “ endless damnation ” would yawn beneath the feet of an impious man and he would shrink from “ eternal punishment before the tribunal of that God whom he had insulted.” It is very significant to observe that this very doctrine of eternal punishment was one which Shelley could never tolerate in his later life and it was against this doctrine that he protested in his poetical as well as prose works. The pathetic confession of Ginotti reveals the torments through which a disbeliever has to pass for his denial of God. The dreadful visions of Ginotti, the lowering precipices through which he had to pass

¹ Zastrozzi, Chapter XVI.

² *Ibid*, Chapter XVI.

in his dreams, the dark gloomy clouds, the tempestuous atmosphere, the hideous and detestible countenance of Satan himself—all create a situation awe-inspiring and terrible. The atonement and the final overthrow of Satan remind us of Mediæval legendary incidents associated with Doctor Faustus and other audacious spirits.¹

There was, however, scepticism in the air. Side by side with traditionalism, there was growing up a spirit of enquiry, criticism and analysis which could not rest satisfied with the blind acceptance of orthodox principles. Strengthened by the critical method of Locke and the cautious scepticism of Hume this tendency wielded a very great influence, not only on philosophers and men of letters but on men of culture as well. They must probe and ponder, analyse and discuss, before they could accept any new idea or new principle. Verbal disputations could not satisfy them, nor could appeals to authority, however sacrosanct, cow them down into submission. The progress of scientific investigations and the new philosophy of the Encyclopædists further stimulated this scepticism. The younger group of thinkers and poets were specially attracted to this school of sceptical thought both in England and in France.

In spite of his firm belief in orthodox principles, Shelley, living as he did in intimate contact, either through their works or otherwise, with thinkers who were sceptical in their outlook in philosophy, could not but be considerably influenced by them. The success of science and the close identification of scientists with scepticism had for Shelley a significance which we, at this distance of time, cannot possibly comprehend. One of the most cogent arguments which the poet introduced for the purpose of disproving the immortality of the soul is of peculiar interest in this connection. "Some philosophers—and those to whom we are indebted for the most stupendous discoveries in physical science, suppose, on the contrary, that

¹ Shelley, *St. Irvyne*, Conclusion.

intelligence is the mere result of certain combinations of the particles of its object." ¹ The only thing which invests such a materialistic view with a peculiar authority of its own is the simple fact that it has the support of persons eminent for their success in the scientific investigation of truth

Very early in life the imaginative temperament of Shelley was attracted towards science which seemed to open up before him unending vistas of human progress. His passion for the marvellous and the supernatural which made him admire "the wildest and most extravagant romances" was not without its influence in other directions as well. Ancient books on chemistry and magic were read with "an enthusiasm of wonder almost amounting to belief" ² and we have in Hogg's *Life of Shelley* interesting accounts of his early adventures in connection with scientific experiments. ³ This interest in scientific experiments of the sensational type was further strengthened, in spite of the opposition of tutors ⁴ and other authorities, during his residence at Eton and Oxford. The scientific spirit of the age was thus instilled, consciously or unconsciously, in the mind of the poet. A desire for unveiling the mysteries of the universe became the ruling passion of his mind and through its influence Shelley imbibed that spirit of scientific inquisitiveness which afterwards led him to metaphysical speculations dealing with the ultimate problems of life. It was this scientific spirit, again, which was, to a very great extent, responsible, for a greater flexibility of mind which was one of his characteristics in later life. During the first part of his life, however, the poet found a new interest in the questioning spirit of scepticism. In *St. Irvyn* and *Zastrozzi* Shelley appeared as an uncompromising supporter of orthodox principles; yet *Zastrozzi* himself, in spite of all his atheism and other crimes, is invested with a dignity of his own. In the

¹ Shelley, *On a Future State*.

² Shelley, *Letter to William Godwin* (Jan. 10, 1812).

³ Hogg, *Life of Shelley* (I, 7-8).

⁴ Medwin, *Life of Shelley* (I, 45).

greatest crisis of his life he shows an indomitable will and a calm resignation to his fate which excite the admiration not only of his audience but of his judges as well. His dignified attitude and dauntless composure appeal strangely to everyone who witnesses his death. His manner silences the tumultuous multitude and, unappalled even by the prospect of death, he stands towering as a veritable demi-god before the populace who had come to gloat over his punishment. In sad contrast to the magnificent personality of this atheist cowers Matilda, the meek believer in Providence, trembling and "fainting with dizzy horror" on the slightest pretext and over-anxious to preach her newly-discovered faith.¹ In fact, the way in which Shelley invested the sceptic with all the splendid powers of a hero shows the bent of his mind at that particular period of his life. Though even then a firm believer in traditional principles, his imagination plainly showed a peculiar fascination for the proud defiance of sceptical thought.

The mind of Shelley thus acquired, during the most formative period of his life, an interest in speculations of all types. In Oxford this tendency was gradually directed towards metaphysical discussions. The enthusiasm and solemnity with which he approached the current metaphysical problems of the day always attracted the notice of his fellow-students and specially of his friends and acquaintances. Thomas Jefferson Hogg, one of his earliest and most intimate friends at Oxford, was, from the very first, surprised at the poet's interest in philosophical speculations. "'Aye, Metaphysics,' Shelley would often say in a solemn tone and mysterious air; then rising from the chair, he would pace slowly about the room with prodigious strides and discourse of the soul with still greater animation and vehemence—of a future state and specially of a former state—of personal identity and also of ethical philosophy in a deep and earnest tone of elevated morality."²

¹ Zastrozzi, Chapters XVI and XVII.

² Hogg, *Life of Shelley* (also *Shelley in England*, Ch. I).

It has been often affirmed that Shelley was drawn towards scepticism by the opportunities which such a system afforded to youthful enthusiasts to challenge and controvert current opinions and traditional principles. Youthful bravado, in the opinion of some critics, was responsible for much of what Shelley did in those days of disputation and controversy. The poet, we are reminded, was an eager, bold and unwearied disputant and consequently materialism appealed to him as a novel system of thought which profoundly disturbed the self-complacency of orthodoxy.¹

"The sceptical philosophy had another charm," writes Medwin, one of the earliest biographers of Shelley, "it partook of the new and the wonderful, inasmuch as it called into doubt, and seemed to place in jeopardy during the joyous hours of disputation many important practical conclusions."

It has also been frequently asserted that one of the reasons which made the poet turn towards scepticism is the exuberance and self-sufficiency of youth. With the enthusiasm of an evangelical preacher Medwin points out that scepticism can be the creed of those philosophers alone who "are distinguished by a sterility of soul, a barrenness of invention, a total dearth of fancy, and a scanty stock of learning." It readily finds followers among the youth for, "they are alone sensible that they possess the requisite qualifications for entering the school and are as far advanced as their master." This interpretation of the life of Shelley does not, however, take into consideration the difficulties through which Shelley had to pass and the persecutions he had to endure for the sake of his opinions. He was, from the very beginning, attacked for his "detestable" principles, regarded as an outcast by his family² and finally expelled from the University. Yet in the midst of all these misfortunes of life the youthful Shelley remained true to his convictions. "Youthful audacity,"

¹ Medwin, *Life of Shelley*.

² Shelley, *Letter to Hogg* (Dec. 20, 1810).

“love of disputations”—these are mere surmises which cannot explain his proud defiance and contempt for the “ineffectual attempts” of his relatives to frighten him into submission,¹ nor can they account for his dignified refusal of his father’s offer even after he had been cast adrift into the world all friendless and alone.² His letter to Sir Timothy Shelley reveals the true situation. The poet was no flippant dabbler in metaphysics; he did not accept sceptical principles simply to show off his originality. On the contrary, his was a mind which was ever alert in its pursuit of truth, ever eager to discover new ideas and new principles. This intellectual alertness was further strengthened by an intellectual honesty which urged him to endure all hardships for the sake of his cherished principles. It was the “shocking absurdities of the popular philosophy of mind and matter, its consequences in morals and their violent dogmatism concerning the source of all things” which made him a sceptic and conducted him, very early in life, to materialism.³ This is, indeed his own confession and nothing else can explain his attitude towards these problems during the whole course of his youthful career either at College or, after his expulsion, in the solitudes of populous London.

The methods of analysis and observation which Shelley had formed at Oxford received a great impetus by his idea that each individual is a missionary of his own principles. From his early age he had begun to communicate his thoughts to individuals known or unknown to him. Originally he confined himself to scientific questions, but, in course of time, metaphysics “usurped the place in his affections.” These epistolary controversies, Hogg affirms, should never be regarded as mere recreations of his intellect. “In briefly describing the nature of Shelley’s epistolary contentions, the impression that they

¹ Shelley, Letter to Hogg (Dec. 20, 1810).

² Shelley, Letter to Sir Timothy Shelley (April 5, 1811).

³ Shelley, *On Life*.

were conducted on his part, with frivolity or any unseemly levity, would be most erroneous ; his whole frame of mind was grave, earnest and anxious, and his deportment was reverential with an edification reaching beyond his age." In fact, "the meek seriousness of Shelley was redolent of these good old times, before mankind had been despoiled of a main ingredient in the composition of happiness, a well directed veneration."

Locke had already created a commotion in the world of English thought by his philosophical theories. His challenge to authority and his defence of reason had profoundly disturbed the placid contentment of philosophers and thinkers. His analysis of the human understanding and his attempt to develop a system of thought based on human experience alone had already created a new school of philosophy in England. Discussions on the Lockian principles of epistemology had led Hume to a more sceptical position and his discourses and enquiries had, by their very originality, attracted the notice of robust intellects. In the University of Oxford itself there were constant discussions among the undergraduates regarding these new ideas of Locke and Hume and we may well imagine with what avidity and enthusiasm Shelley would take part in them. "We had," Hogg writes in his *Life of Shelley*, "read together several metaphysical works that were in vogue at that time such as Locke *On the Human Understanding*, Hume's *Essays* of which we made a very careful analysis." "I read," wrote Shelley to Godwin on June 3, 1812, "Locke, Hume, Reid and whatever metaphysics came in my way, without, however, renouncing poetry, an attachment which has characterised all my wanderings and changes." Medwin in his *Life of Shelley* gives us an interesting picture of the poet as a disputant in the discussions so frequently held among the students of Oxford. Shelley was, according to him, a bold, eager and unwearied controversialist who would frequently "exercise his ingenuity in long discussions respecting various questions on Logic and more frequently indulge in metaphysical enquiries."

It was only natural that the greatest influence on Shelley's mind should be, specially during the early formative period of life, Locke and Hume. So great was his veneration for Locke that "the examination of a chapter of Locke's *Essay Concerning the Human Understanding* would induce him, at any moment, to quit every other pursuit."¹ "He was the systematic cudgel for blockheads"² which the poet did not scruple to try even on his father. Not only so, whenever Shelley wanted to convert any one to his own philosophy he would refer him to the same authority.³ He not only accepted the Lockian doctrine of the non-existence of innate ideas but based all his theological discussions on this single principle;⁴ and he would fain try to dispel all prejudices and "inextricably 'fatuous' enthusiasm" whether in religion, or in politics, or in morality, by pointing out to his antagonist in the controversy the cogency of Locke's arguments in that famous chapter of his *Essay Concerning the Human Understanding*.⁵ Equally profound was the impression left by Hume's *Essays* on the mind of Shelley. During his residence at Oxford the poet read and re-read the *Essays* of Hume; so much attracted was he to the metaphysical speculations of this philosopher that he would, almost always, try to refute the traditional principles of theology by "putting forward in argument the doctrines that Hume upheld."⁶ In fact, Shelley identified himself with the standpoint of Hume so completely that "a stranger who had chanced to have been present at some of his discussions, or who only knew him from having read some of his short argumentative essays would have said, 'surely the soul of Hume passed by transmigration into the body of that eloquent young man, or rather, he represents one of the en-

¹ Medwin, *Life of Shelley*.

² Shelley, *Letter to Hogg* (January 17, 1811).

³ Shelley, *Letter to Elizabeth Hitchener* (Jan. 5, 1811).

⁴ Shelley, *Letter to Elizabeth Hitchener* (June 11, 1811).

⁵ Shelley, *Letter to Hogg* (July 4, 1811).

⁶ Hogg, *Life of Shelley* (also *Shelley in England*, Ch. III).

thusiastic and animated materialists of the French School, whom revolutionary violence lately intercepted in an early age in his philosophical career.'"¹

The ideas which Shelley imbibed from his study of Locke and Hume were expressed, consciously or unconsciously, in the writings of the poet belonging to this early period of his life. One of his earliest poems, *The Wandering Jew*, sent for publication to Messrs. Ballantyne & Co., Edinburgh, was refused by them as, in their opinion, it contained atheistical principles unfit for publication.¹ Shelley was, indeed, greatly surprised as he was absolutely unconscious of having expressed in it any sceptical doctrines. While requesting Stockdale to publish the poem, Shelley significantly pointed out the impossibility of inculcating pernicious doctrines in "a poem....so totally abstract from any circumstances which occur under the possible view of mankind."² The same influence is responsible for his resolve to write a novel so constructed as to convey metaphysical and political opinions by way of conversation.³ The novel was sent for publication to Munday and Slatter, the Oxford printers of Shelley's *Posthumous Works of Margaret Nicholson* but its printing was stopped "in consequence of their discovering that he had woven free opinions throughout his work."⁴

In the meantime Shelley's sceptical principles and the methods he used for promulgating them attracted the notice of the well-wishers of his family. As early as 1810 Stockdale, the Oxford Publisher was compelled by his recent activities to give some delicate hints to Sir Timothy Shelley regarding the poet's "predispositions against revealed religion." The well-meaning Baronet, in his own blundering way, proceeded to exorcise from his son's mind the spirit of scepticism. "My father," wrote Shelley to Hogg on December 20, 1810, "wrote me and I am

¹ Hogg, *Life of Shelley*.

² Shelley, *Letter to Stockdale* (Sept. 28, 1810).

³ Shelley, *Letter to Stockdale* (Dec. 18, 1810).

⁴ Montgomery, *Oxford* (Quoted by Ingpen, *Letters of Shelley*, Vol. I, p. 18 Notes).

now surrounded, environed by dangers to which compared the devils who besieged St. Anthony were all inefficient. They attack me for my detestable principles ; I am reckoned an out-cast." Again, "My mother imagines me to be on the high-road to Pandemonium, she fancies I want to make a deistical coterie of all my sisters."¹ The disapproval and censure of his family Shelley endured with calm and dignified resignation. He defied them and laughed at their ineffectual efforts. His father might threaten to withdraw him from College ; there might lower a terrific tempest of domestic unhappiness yet he remained unmoved. He stood "as it were, on a pharos and smiled exultingly at the vain beatings of the billows below."² When, however, his beloved joined the orthodox group and began to despise him for his sceptical opinions, his paroxysm of resentment against the established religion of the age knew no bounds ; it was unrestrained by any consideration of propriety or good sense. It is not necessary to quote from his letters incoherent diatribes against bigotry and intolerance as represented by the Christian Church of his days. "The expiring yell of intolerance,"³ "superstitious bigotry," and similar phrases on the one hand, and, on the other, his impatient determination to destroy the opinion which can annihilate the dearest of its ties,⁴ reiterated again and again in almost all the letters of this period give us a very good idea of the storm of passions which was then passing through his mind.

Orthodox beliefs, however, die very hard. And in the life of Shelley there is discernible a period of transition, of doubt and hesitation. His unhappiness might be excessive ; he might pass through miseries which awakened in him thoughts of vengeance and retribution, yet he still clung to belief in a God

¹ Shelley, Letter to Hogg (Jan. 11, 1811).

² Shelley, Letter to Hogg (Dec. 20, 1810).

³ Shelley, Letter to Hogg (Dec. 26, 1810).

⁴ Shelley, Letter to Hogg (Dec. 20, 1810).

"whose mercy is great." He would fain open his heart to this merciful God but he dared not do so.¹ He tried to conceive to himself a Being "the soul of the universe, its intelligent and necessarily beneficent actuating principle" and considered it impossible not to believe in such a spirit. He confessed, indeed, that he could not, specially after studying Hume and other philosophers belonging to the same school, adduce proofs but it appeared to him that "the leaf of a tree, the meanest insect on which we trample, are, in themselves, arguments more conclusive than any which can be advanced, that some vast intellect animates infinity."² There is, in the theological speculations of Shelley during this stage of his mental development, a note of hesitation which gives us a faithful picture of the crisis through which the poet was then passing. Bewildered by sceptical arguments yet loth to give up the cherished beliefs of his early age, eager to believe but acutely conscious of the difficulties of the orthodox position, Shelley now lamented for his doubts and ardently wished that the whole question might be decided one way or the other. "But heaven, eternity and love!" so he wrote to Hogg on January 12, 1811, "I am yet a sceptic on these subjects. Would that I could believe them to be, as they are represented; would that I could totally disbelieve them." After a sincere attempt to prove the existence of the Deity and His care for the present happiness of His creation, the young sceptic cries out in the anguish of his heart, "Oh that this Deity were the soul of the universe, the spirit of universal, imperishable love." He indeed believed in it but his belief was fast losing its ground and he was vainly attempting to discover a secure foundation for his faith. A month passed, and on February 13, 1811, the same Shelley, so eager to believe, wrote to Graham sending him a book and requesting him to "be particularly intent on it." "Cut out the title-page and advertise it in eight famous papers;" the

¹ Shelley, Letter to Hogg (Dec. 26, 1810).

² Shelley, Letter to Hogg (Jan. 3, 1811).

poet instructed his friend. He was now equally eager to proclaim to the world his new faith in *The Necessity of Atheism*.

The same note of hesitation marks his discussions on the Future State which he then carried on with his friends and acquaintances. The arguments of the sceptical school of philosophy made a profound impression on his mind and shook to its very foundations his belief in the immortality of the soul. "All that natural reason enables us to discover is that we now *are*, that there was a time when we were not; that the moment even when we now are reasoning is a point before and after which is eternity." Yet he could not rest satisfied with this trend of reasoning. He rather wanted to believe that the soul will, in a future existence, "begin life anew, possibly under a shape of which we have, at present no idea."¹ He sought to adduce in its favour arguments which might not partake of the nature of hypotheses. He reverted to this question time and again, during the next few months and his anxiety to produce incontrovertible proofs, and not mere hypotheses and assumptions, in defence of the doctrine of the immortality of the soul indicates, indeed, to what extent his previous beliefs had been shaken.² His will to believe grew stronger as the basis for such belief became more and more shaky. This inner urge to believe drove him to strange arguments and stranger hypotheses.³ The struggle in his mind between scepticism and belief, between feeling and reason, is very pathetically expressed in a letter written to Elizabeth Hitchener on December 11, 1811. "Every day," so wrote the poet, "makes me feel more keenly that our being is eternal. Every day brings the conviction how futile, how inadequate, are all reasonings to demonstrate it. Yet are we—are these souls which measure in their circumscribed domain the distance of yon orbs—are we but bubbles

¹ Shelley, Letter to Elizabeth Hitchener (Jan. 20, 1811).

² Shelley, Letter to Elizabeth Hitchener (June 25, 1811).

³ Shelley, Letter to Elizabeth Hitchener (Nov. 24, 1811).

which arise from the filth of a stagnant pool, merely to be again re-absorbed into the mass of its corruption? I think not, I feel not." But these were mere suppositions; the poet wanted proofs. In the conflict of his soul he plaintively asked the sister of his soul, whether she could prove it more satisfactorily. In spite of his intellectual difficulties, Shelley was eager to demonstrate that "it is not merely one of the dogmas of an inconsistent religion though all religions have taken it for their foundation." Not only so, even after the publication of his treatise on the *Necessity of Atheism*, as late as January 1812, he could criticise Elizabeth Hitchener for her scepticism about the eternity of the soul and inform her that he entertained no doubts whatsoever about it. This over-emphasis on his faith plainly foretold that a day was not far distant when this youthful philosopher and thinker who had so long been clinging, against heavy odds, to his traditional belief in the immortality of the soul would have to succumb to the sceptical tendencies of his environment and in his essay *On a Future State* refute the very arguments on which he had formerly relied.

2

LOCKE AND SHELLEY

Locke has often been regarded as the "second father of Modern Philosophy." In his early youth he had to pass through the entire gamut of Aristotelian scholasticism in the University of Oxford and the verbal disputations in which he had to take part left a very strong impression on his mind. Like Bacon he could not accept the formal logic which was then prevalent in the Universities. On the contrary, he found it "perplexed with obscure terms and useless questions" leading to "wangling and ostentation" rather than to the discovery of truth. He, consequently, revolted against tradition and authority; for tradition and authority appeared to exert a very dangerous

influence on the minds of men, stifling their originality and making of them mechanical slaves to irrational dogmas and "unverified assumptions." This reaction against contemporary tendencies of thought made Locke place on human personality an emphasis which was almost revolutionary. "So much as we ourselves consider and comprehend of truth and reason," he asserted time and again in his Essay, "so much we possess of real and true knowledge. The floating of other men's opinions in our brains makes us not one jot the more knowing though they happen to be true."¹ His anxiety to disprove the existence of innate ideas in the human mind was, to a very great extent, the result of a lurking fear lest the acceptance of such principles should "take men off from the use of their own reason and judgment and put them upon believing and taking upon trust without further examination."²

The only guide which the philosopher could follow was reason. Reason is the "natural revelation whereby the eternal Father and Fountain of all knowledge communicates to mankind that portion of truth which he has laid within the reach of their natural faculties."³ It is "the candle of Lord set up by himself in men's minds, which it is impossible for the breath or power of man wholly to extinguish."⁴ Even when, as an orthodox Christian, he accepted revelations and sought to differentiate between faith and reason, the rationalist philosopher could not forget this "candle of the Lord" in the human mind. Revelations might be true; they might convey to us knowledge of undiscovered regions which we can never discover by "the natural use of our faculties." Yet Locke never failed to point out that "revelation is *natural reason* enlarged by a new set of discoveries communicated by God immediately." Reason must

¹ Locke, Essay Concerning the Human Understanding (I, iv, 23).

² Locke, Essay Concerning the Human Understanding (I, iv, 24).

³ *Ibid.*, (IV, xix, 4).

⁴ *Ibid.*, (IV, iii, 20).

vouch for its truth; it must prove beyond doubt that "it comes from God."¹

Mere verbal disputations could not satisfy the critical mind of Locke. Meaningless words have, according to him, always been the bane of philosophy; they are mere "rubbish that lies in the way to knowledge." "Pressed down by an overwhelming load of such vague and unintelligible phrases" the seeker after truth has somehow to stagger on and, naturally, his progress becomes slow; and it is, according to Locke, a distinct service done to the cause of scientific thought and philosophical speculation to break up this artificial superstructure of phraseology, imposing and, at the same time, meaningless. A sincere investigator of truth should, therefore, insist upon clear and distinct ideas with "a determinate meaning" in all philosophical discussions. "Knowledge," he asserted, "had been certainly very much advanced in the world if the endeavours of ingenious and industrious men had not been much cumbered with the learned but frivolous use of uncouth, affected or unintelligible terms, introduced into the sciences, and there made an art of to that extent that philosophy, which is nothing but the true knowledge of things was thought unfit or incapable to be brought into well-bred company and polite conversation." This tyranny of words from which all thinkers and philosophers had to suffer in his age, Locke sought to oppose and destroy. It was no easy task that he laid upon himself. "Vague and insignificant forms of speech and abuse of language," so Locke lamented, "have so long passed for the mysteries of science; and hard or misapplied words, have, by prescription, such a right to be mistaken for deep learning and height of speculation that it will not be easy to persuade either those who speak or those who hear them that they are but covers of ignorance and hindrance of true knowledge."²

¹ Locke, *Essay Concerning the Human Understanding* (I, xix, 4).

² *Ibid* (Epistle to the Reader).

³ *Ibid*.

The methods of individual enquiry and observation that Locke initiated in the realm of philosophy gradually gathered strength and power. The scepticism of Hume and the materialism of the revolutionary school of France left a profound impression on the minds of the younger generation of poets and thinkers. They regarded Hume, Helvetius and D'Holbach as their authorities; they reproduced their arguments in their own metaphysical speculations and even thought that the works of these philosophers should be translated for the enlightenment of the common man. In the case of Shelley, however, the influence of Locke was deeper. His recognition of the human reason as the greatest instrument for the attainment of perfection was, indeed, due to a careful study of Godwin's *Political Justice*; he often borrowed his arguments from the *Système de la Nature* of D'Holbach and profusely quoted from other writers to strengthen his standpoint. But the very basis of his metaphysical speculations seems to be derived from Locke rather than from any one else. Sometimes the influence of Locke was more powerful than that of Godwin himself. Even in his early youth, when the poet was practically in the leading-strings of the philosopher, the empiricism of Lockian philosophy and its denunciation of wordy disputes made the enthusiastic admirer of Godwin sharply criticise his opinions. In spite of his revolutionary ardours and democratic principles Godwin's love of classical culture impelled him to recommend "the acquisition of classical learning" as the "proper employment of youth." The answer of Shelley was characteristically reminiscent of Locke. "Words," he pointed out, "are the very things that so eminently contribute to the growth and establishment of prejudices. The learning of *words* before the mind is capable of attaching correspondent ideas to them, is like possessing machinery of which we are so unacquainted as to be in danger of misusing it."¹

Like Locke again, the poet had become fully conscious of the evils which result from "annexing inadequate and improper

¹ Shelley, Letter to Godwin (Jan. 29, 1812).

ideas to words." In his *Speculations on Metaphysics*, the same attitude of mind, the same distaste for merely verbal disputes is plainly and markedly discernible. Critically reviewing contemporary movements of thought Shelley, like Locke, was disheartened by the servile homage then paid to authority. Men in his age seemed to accept opinions not because they were reasonable but because they could be found ready at hand without any effort whatsoever on the part of the seeker after truth. They "combined words, combined a thousand times before." "In our minds," the poet was careful to point out, "we assume entire opinions and in the expression of these opinions entire phrases when we would philosophise. Our whole style of expression and sentiment is infected with the tritest plagiarisms. Our words are dead, our thoughts are cold and borrowed."¹

The *a priori* method of reasoning could never appeal to the mind of Locke; on the contrary, the only method of metaphysical speculation he could accept in that age of scientific endeavour was one of observation and analysis. He sought to base his metaphysics on a definite science of knowledge. The philosopher, according to him, must try to find out the nature of the human understanding and define its scope before he can proceed to discuss questions of far greater import. He must determine how far the human understanding can extend its view, how far it has faculties to "attain certainty and in what cases it can only judge and guess."² Then alone will he be able to discuss metaphysical questions with real insight. This method, when applied to the human understanding, cannot, however, proceed smoothly very far. It encounters, at every step, difficulties, which it did not recognise before. The human understanding has to be studied introspectively. Man can have a definite knowledge of it only by observing the activities of his own mind. "But," observed the philosopher, "whatever be the difficulties in the way of this enquiry, whatever it be that keeps us so much in the

The Introspective
Method.

¹ Shelley, *Speculations on Metaphysics* (What Metaphysics are).

dark to ourselves ; all the light we can let in upon our own minds, all the acquaintance we can make with our own understanding will not only be very pleasant but bring us great advantage in directing our thoughts in the search of other things.”¹ And thus by directing the attention of man upon his own self and turning the light of human intellect upon its own operations Locke sought to sweep away all effete traditions and unproved assumptions. His was a “ plain historical method.” He would enquire “ into the *original* of these *ideas*, notions or whatever else you may call them which a man observes, and is conscious to himself he has in his mind.” Such an enquiry would, he believed, furnish him with all necessary information about the manner in which ideas are formed in his mind. Thus enlightened, the investigator of truth should, according to Locke, “ endeavour to show what *knowledge* the understanding hath by these ideas, the certainty, evidence, and extent of it.” The ground being cleared of all theories and assumptions unsupported by facts, the philosopher will find no difficulty in determining the “ nature and ground of faith or opinion.” He will, then, have a definite idea of the functions and limits of the human understanding. It is only when such an accurate knowledge of the fundamental principles have been acquired that the philosopher can proceed with the deepest problems of metaphysical speculations.²

The same scientific methods of observation and analysis exerted a very great influence on the mind of Shelley as well. He did not recognise any difference between the physical sciences and metaphysical enquiries. Both must proceed on facts ; both must base their conclusions, not on blind surmises, but on definitely established principles. Tacitly accepting the standpoint of Locke that philosophy involves a scientific enquiry into the functions and nature of the human understanding and,

¹ Locke, *Essay Concerning the Human Understanding* (I, i, 1).

² *Ibid* (I, i, 3).

consequently, of the human mind, Shelley was careful to point out that, as in the positive sciences, rigid methods should be applied to the investigation and analysis of psychological data. "Let us contemplate *facts*; let us, in the great study of ourselves, resolutely compel the mind to a rigid consideration of itself. We are not content with conjecture, and inductions, and syllogisms in sciences regarding external objects; and in these let us also, in considering the phenomena of mind, severely collect those facts which cannot be disputed."¹ Like Locke he was conscious that in such an enquiry into the nature of the human mind it is absolutely necessary to follow an introspective method. We must look into what passes within ourselves. We must observe our mental states very carefully, analyse them into their constituent elements, and thus acquire a definite idea of their nature. Metaphysics which Shelley, going one step further than Locke, regarded as an "enquiry into the things belonging to, or connected with, the *internal* nature of men"² must, by the very nature of its investigations, be based on self-observation; and, owing to this fact alone, it must be regarded as superior to other sciences. It has, according to Shelley, this conspicuous advantage that "each student, by attentively referring to his own mind, may ascertain the authorities, upon which any assertion regarding it are supported. There can be no deception, we ourselves being the depositaries of the evidence of the subject which we consider."³ Equally conscious was the poet of the difficulties of such a method of enquiry. It is not, easy to step aside and observe the activities of one's own mind; nor can one, by a simple analysis of self-consciousness, gain a complete picture of one's own mental states. For the "intricate and winding chambers of our mind" are well-nigh inaccessible. Our thoughts and ideas are, more often than not, too elusive to be captured and analysed. In fact, the way in which the poet described the

¹ Shelley, *Speculations on Metaphysics* (What Metaphysics are).

² Shelley, *Speculations on Metaphysics* (I, What Metaphysics are).

³ *Ibid.*

human mind makes one suspect that he might, consciously or unconsciously, have arrived at some vague conception of the subconscious regions of the human mind. "The shadowy and obscure caverns of mind," "pervaded with a lustre, beautifully bright indeed, but shining not beyond their portals" present us with a picture far different from what we find in treatises of philosophy prevalent in that period. They suggest, vaguely though it be, that the human mind has far other regions in the depths of its being, regions which the light of human intellect can never illuminate, regions which lie beneath the threshold of human consciousness. The task of introspection, consequently, became more difficult with the poet than with the philosopher.

In the identification of metaphysics with psychology, however, Shelley misunderstood the standpoint of Locke. Though the philosopher regarded it absolutely necessary to enquire into the nature and functions of the human mind in order to arrive at a clear and definite idea about the limits of human knowledge, he was always conscious of the aim of philosophy which is realisation of ultimate truth. He recommended psychological enquiries simply to clear the ground for metaphysical speculations. He wanted to use the introspective method to find out the extent of our comprehension and thus form a conclusive idea of the limits of metaphysical enquiries. "If by this enquiry into the nature of the understanding I can discover the powers thereof, how far they reach, to what thing they are in any degree proportionate, and where they fail us, I suppose it may be of use, to prevail with the busy mind of man to be more cautious in meddling with things exceeding its comprehension." Men will then cease to "perplex themselves and others with disputes about things to which their understandings are not suited" or of which they cannot form any distinct idea. He was, in fact, always careful to differentiate between metaphysics and psychology. But his entire *Essay* is so much occupied with questions of psychology that it was only natural for Shelley to identify the one with the other.

In spite of the difficulties of the introspective method Shelley conformed to it from his early youth, and although in his Prose Works we do not get any formal enunciation of the different stages of this method, as we find in Locke's Essay, yet the conclusions arrived at by Shelley regarding the constitution of the human mind plainly point to such a system of introspective analysis. In his *Speculations on Morals* the poet did not rest satisfied with abstract arguments and theoretical discussions. On the contrary, he based his ideals and principles on an analysis of the human personality. He wanted to proceed further, and consider "in what manner the sensations which constitute the basis of virtue originate in the human mind; what are the laws which it receives there; how far the principles of mind allow it to be an attribute of a human being; and lastly, what is the probability of persuading mankind to adopt it as a universal and systematic motive of conduct."¹ Further, there is at the very beginning of this pamphlet a description of Benevolence which shows the successful use of methods of introspective analysis by the poet. Of a similar nature is the analysis of the emotions of pain and pleasure and of the virtue of justice which the poet had to develop in support of his theories. It has often been asserted that Locke was, to a very great extent, responsible for Shelley's empiricism which, later on, led to his conversion into a materialist; but it is not as often remembered that it was this introspective method of Locke which compelled him to recognise in man an element at enmity with transience and decay and reject the materialistic hypothesis as inadequate.² Shelley's idealism is as much the result of introspection as his materialism. There are again certain principles of the philosophy of Locke to which Shelley subscribed unconditionally. The very cornerstone of Locke's system was the rejection of innate ideas and a considerable portion of the first Book of his Essay is devoted to a refutation of arguments in its favour. Shelley did not, however, go into details, on the

¹ Shelley, *Speculations on Morals* (Chapter I).

² Shelley, *On Life*.

contrary, it was enough for him that Locke had proved "that there are no innate speculative and practical principles." He was fully convinced of the non-existence of innate ideas. It had, he asserted, been proved beyond a shadow of doubt; for, had not Locke "challenged any one to find out any idea which is innate? This challenge had a much greater influence on the mind of Shelley than any long discussion could have ever had. It convinced him so far that he referred to it, time and again, in his letters to Elizabeth Hitchener, the sister of his soul. It was held up to the admiration of his associates and enthusiastically proclaimed to be conclusive. This is indeed a very slender argument to rely upon for building up a system of thought; yet upon this slender basis did the young enthusiastic disciple of Locke proceed to construct his own philosophy. Not only so, this was also the foundation of Shelley's ideals of education. The human mind, according to the poet, is a *tabula rasa*, ready to receive any and every impression imposed upon it, and is, consequently, moulded by its environment of thoughts and ideals. In fact, all the hopes that Shelley entertained about the human millennium are entirely based upon this belief in the efficacy of education and a changed environment to transform the human personality.¹

Divested of all innate ideas, the human mind, according to Locke, becomes a blank sheet of paper. Whence, then, comes all this world of thought which man builds?

The Sources of
Human Knowledge.

This vast superstructure of ideas which so powerfully influences human activities must have some basis on which it can stand; it must gather its materials from some source; that source and that basis, according to the philosopher, is human experience. It is necessary to quote the entire passage from his *Essay Concerning the Human Understanding* in order to appreciate Locke's standpoint and the great influence it exercised on the mind of the poet, "These—the

¹ Vide Godwin and Shelley, *Journal of the Department of Letters, Calcutta University*, Vol. XX, pp. 18-19.

impressions that are made on our senses by outward objects, that are extrinsical to the mind, and its own operations proceeding from powers intrinsical and proper to itself, which, when reflected on by itself, become also the objects of its contemplation—are, as I have said, the original of all knowledge. Thus the first capacity of the human intellect is, that the mind is fitted to receive the impressions made on it, either through the senses by outward objects or by its own operations when it reflects on them.” The world of sensations and the world of mental activities—these two alone man can know: the first is imprinted on his mind by particular sensible objects, the second by reflecting on the operations of his own inner self. These give man the materials whereon he constructs his own world of thought. “All those sublime thoughts which tower above the clouds and reach as high as heaven itself, take their rise and footing here: in all that great extent wherein the mind wanders in those remote speculations it may seem to be elevated with, it stirs not one jot beyond the ideas which *sense* or *reflection* have offered for its contemplation.”¹

Shelley did not proceed to such detailed arguments as Locke. In his Prose Works belonging to this period of his life we do not find any such minute analysis of human knowledge; at that youthful age he enthusiastically accepted the conclusions of the philosopher and did not probably think it necessary to recapitulate arguments which he considered to be as conclusive as self-evident truths. He had not as yet developed any accuracy in thinking; consequently he did not differentiate between sensation and reflection as his master had done. The consciousness of impressions from external objects and the introspective reflection on the activities of one's own mind—both he designated by the common name of “perception.”² Like Locke, however, the poet was fully aware of the “infinite combination,” “relations,”

¹ Locke, *Essay Concerning the Human Understanding* (II, i, 24).

² Shelley, *Speculations on Morals* (The Mind).

and "modes" of these ideas. His imagination was fired by this magnificent thought. He waxed eloquent when he described the world of thought so created. He would form a graduated scale of ideas which would display "an uninterrupted chain of nicely shadowed distinctions" "from the faintest impressions of the senses, to the most distinct combination of these impressions"¹ Any one who has the slightest acquaintance with the *Essay Concerning the Human Understanding* can, even on a superficial study of these passages, notice how full of verbal reminiscences from Locke they are. The poet had Locke in the background of his mind when he proceeded to enumerate the varied materials of our experience "from the simplest of these combinations to that *mass of knowledge* which, including our own nature, constitutes what we call the universe."² His assertion that "the most astonishing combinations of poetry, the subtlest deductions of logic and mathematics are no other than combinations which the intellect makes of sensations according to its own laws" appears to be closely modelled on a similar passage of Locke.³

Apart from these verbal reminiscences the entire metaphysical outlook of Shelley is deeply tinged by the experiential philosophy so emphatically enunciated by Locke. This was indeed the only reasonable interpretation possible—at least Shelley thought so. "By considering all knowledge as bounded by perceptions which may be indefinitely combined, we," according to the poet, "arrive at a conception of nature inexpressibly more magnificent, simple, true, than accords with the ordinary systems of complicated and partial considerations. Nor does the contemplation of this universe, in this comprehensive and synthetical view exclude the subtlest analysis of its modifications and parts." The special emphasis the poet laid on "sensations" as the basis and material of knowledge, however, shows that he

¹ Shelley, *Necessity of Atheism*.

² Shelley, *Speculations on Metaphysics*, I; cf. Locke, *Essay* (II, i, 5).

³ Cf. Locke, *Essay Concerning the Human Understanding* (II, i, 24).

was already leaning towards the sensationalist school of thought. It is also remarkable that in his *Refutation of Deism* the poet, in the character of Eusebes, represented Locke as deriving all ideas from sensations thus ignoring altogether the other source of human knowledge—the ideas which man derives from reflection. He proceeded further and used this interpretation of Lockian philosophy to prove that the God of the rationalist must have an organised body. “Ideas result from sensations which can exist only in an organised body ;” “to assert that God is intelligent is to assert that he has ideas ;” *ergo* the Deity which a rationalistic theosophist adores must be nothing else than a vast and wise animal. It is very difficult to get any definite idea of the poet’s opinions from the dialogue. But the whole trend of the essay gives us the impression that his sympathies were more with the destructive criticism of Eusebes than with the Deistic standpoint of Theosophus ; and there is every reason to believe that Eusebes’ interpretation of Locke was also the position at which Shelley had arrived after his study of experiential philosophy. Mr. Pringle-Pattison has very pertinently pointed out that, on the strength of Locke’s historical affiliation with Sensationalism, critics have very often “visited upon him the sins of his latest descendants and read into his phrases about experience a meaning intelligible only in the light of the sharper distinctions due to subsequent developments.” He instances the criticism of Greene and Hamilton.¹ Where philosophers of their standing misunderstood Locke it was all the more natural for a young enthusiast like Shelley to fall into that common error. It must also be remembered that Hume had already made it easy for sensationalism to establish itself before Shelley ever thought or wrote about these problems of human knowledge and human ideas. The materialistic school of thought in France further strengthened this tendency in the mind of the poet and he became, to all intents and purposes, a

¹ Locke, *Essay Concerning the Human Understanding*, ed. by Pattison, Introduction, p. xxviii.

materialist of the most pronounced type. His idealism however could never be permanently suppressed, and it has been already seen how he was, by the proper use of the introspective methods of analysis, gradually weaned away from materialism. It was only natural that, his idealism once restored through adherence to Lockian methods, he should, in that later stage, revert to other principles of Locke. He who had, in his *Necessity of Atheism* and *Refutation of Deism* regarded sensation as the only source of knowledge now accepted the Lockian standpoint.

Shelley now pointed how

“The everlasting universe of things
Flows through the mind, and rolls its rapid waves
Now dark—now glittering—now reflecting gloom—
Now lending splendour,”

while

..... “from secret springs
The source of human thought its tribute brings
Of waters,—”¹

Man’s world of thought is thus a mighty stream fed by two distinct tributaries, *viz.*, the sensations derived from the external world of nature and the ideas of reflection derived from the operations of the human mind.

Ideas which, according to Locke, form the basis of human
Ideas—simple and knowledge, were classified by him into simple
complex. and complex. Coming into contact with the
human mind through one of the senses, the qualities of the
external objects, though united and blended beyond any possibility
of separation as they exist in the things themselves, produce
in it simple and unmixed ideas. In our world of thought, we
seldom come across such simple ideas; on the contrary, the
human understanding “repeats, compares, and unites them
into an infinite variety” and thus forms complex ones.

Shelley’s analysis of ideas in his *Speculations on Metaphysics* shows us very conclusively the extent to which his mind was influenced by the philosophical system developed by Locke and his school. He gave us a picture of a world of ideas

¹ Shelley, Mont Blanc.

in which the simple sense-impressions are graduated and combined into the mass of knowledge which we call the universe. He was also careful to point out how "combinations which the intellect makes of sensations according to its own laws" form the basis of our subtlest deductions and the most sublime heights of poetic imagination. In his analysis of such moral virtues and vices as tyranny, etc., he adopted the standpoint of Locke. Tyranny for instance, is "a *complex idea*," "one of *Locke's complex ideas*."¹ For Shelley was sure that any person living in his age who had the least pretension to liberal culture must understand Locke and the bare reference to the complex ideas of Locke would be enough for his enlightenment. The poet sometimes tried to analyse complex ideas into their constituent elements. In one of his letters to Elizabeth Hitchener he attempted such an analysis and triumphantly pointed out to his Portia that "the ideas of power, evil, pain, together with a very clear perception of the two latter which may almost define the idea of *hatred*, together with other minor ideas, enter into the composition of the complex idea of tyranny."

The simple ideas, Locke is careful to point out, "are suggested and furnished to the mind. The human understanding receives them passively. Them it can never "refuse to have nor alter when they are imprinted, nor blot them out and make new ones itself than a mirror can refuse to alter or obliterate the images or ideas which the objects set before it do therein produce."² Once the materials are placed before our mind we can analyse them, classify and define them. We can even unite them according to our own will and thus build up our world of thought and imagination. But whatever be the object we create, it is nothing absolutely new but a mere combination of simple ideas. However great a man may be, his imagination and intellect must remain circumscribed by their materials derived from sensation and reflection. They "can do nothing towards

¹ Shelley, *Speculations on Metaphysics*

² Locke, *Essay Concerning the Human Understanding* (II, i, 25).

the making the least particle of new matter or destroying one atom of what has been already created." The same inability man experiences when he tries to picture before himself any simple idea "not received by the senses from external objects or by reflection from the operations of his mind about them."¹

A similar tendency of thought is discernible in the philosophical speculations of Shelley. The mind, according to the poet, cannot create, it can only perceive." It receives sensations from the outside world, through the organs of sense. But in the account that he gave of the constitution of the world of thought, the poet seemed to deny any activity to the human mind. The ideas "suggest" themselves and are determined by the environment and form the elements of thought. They combine together but the poet gave no indication of the part that the mind plays in their combination. He simply asserted that "from the various combinations of these, our feelings, opinions and volitions inevitably result." "Without the action of external objects," so Shelley pointed out, "we should not only be deprived of all knowledge of the existence of mind, but totally incapable of the knowledge of anything;" so that "mind deserves to be considered the effect rather than the cause of motion."² This idea of the mind as entirely passive, the mere arena for the action and interaction of ideas which combine nobody knows how, into a complex world of thought, is entirely different from Locke's standpoint. For Locke was always very careful to state that "mind has an independent and active existence of its own;" it is "informed by the senses," takes notice of the changes in its ideas, observes and reflects on what passes in it and thus transmutes the materials of thought into ideas and concepts. The associationist theory, as well as the sensationalism of contemporary philosophy was assuredly determining the poet's ideas, especially at this stage of his mental development.

¹ Locke, *Essay Concerning the Human Understanding* (II, ii, 2).

² Shelley, *The Refutation of Deism*.

Ideas, according to Locke, are the materials of our mental operations. They are the only immediate objects which mind can observe and contemplate. Knowledge being a mental operation must, necessarily, be confined to ideas alone. Mere perception of ideas, however, does not constitute knowledge. It is their mutual relation which falls within the province of knowledge. Man can be regarded as acquiring it only when he perceives the connection that subsists among them. It is, therefore "the perception of the agreement or disagreement of two ideas." When we actually perceive without the least doubt this relationship of agreement or disagreement we are said to *know* in the Lockian sense of the term. Where we fall short of absolute certainty in this respect we "may fancy, guess or believe yet we fall short of knowledge."¹

The human mind, according to Locke, can, and does perceive these relationships in two altogether different ways. Introspection tells us that we often perceive these relationships "immediately, by themselves;" we do so by "bare intuition;" there are no intervening ideas, no logical syllogisms to assist us in such a perception. Intuitive knowledge of this type is the "clearest and the most certain that human frailty is capable of."² It "leaves no room for hesitation, doubt or examination but the mind is presently filled with the clear light of it." There are, however, occasions when we do not perceive immediately the agreement or disagreement of two ideas; and we are convinced only when we discover them by a process of reasoning along a chain of intervening ideas. This type of mediate perception Locke refers to as "demonstrative knowledge." "Demonstration," he points out, "is the showing agreement or disagreement of two ideas by the intervention of one or more proofs which have a constant, immutable, and visible connection, one with another."³

¹ Locke, *Essay Concerning the Human Understanding* (IV, i, 2).

² *Ibid* (IV, ii, 1).

³ *Ibid* (IV, xv, 1).

The province of intuitive and demonstrative truth is indeed very narrow and circumscribed. We, in our life, have, however, to act upon propositions which belong to neither of these two categories. They are not absolutely certain but approach so near to certainty that we implicitly rely upon them in the most important affairs of our life. The proofs on which they are based have no "constant, immutable and visible connection." "The entertainment the mind gives this sort of propositions is called belief, assent, or opinion which is the receiving or admitting any proposition for true upon arguments or proofs that are found to persuade us to receive it as true without certain knowledge that it is so."¹

Shelley had no philosophical training which could analyse knowledge so minutely and classify it according to the strength of its proof. In his early *Prose Pamphlets* he identified belief or opinion with knowledge. He warned Lord Ellenborough against punishing individuals for their belief or disbelief; he sought to persuade him that they, being completely "distinct from and unconnected with volition" can never be the subject of reward or punishment. The definition of belief which he wanted to establish in this connection was a mere echo of Locke's definition of knowledge. Belief and disbelief, he reminded His Lordship, "are the *apprehension of agreement or disagreement of the ideas—which compose any proposition.*"² Theophrastus similarly reminded Eusebes in his *Refutation of Deism* of the absurdity of regarding incredulity as immoral by pointing out that "truth (or belief ?) is the *perception of the agreement or disagreement of ideas.*" When analysing the grounds of belief in God, Shelley, the upholder of the *Necessity of Atheism* observed sententiously: "When a proposition is offered to the mind, it perceives the agreement or disagreement of the ideas of which it is composed. A perception of their agreement is belief." The poet was certainly using the term belief to include all

¹ Locke, *Essay Concerning the Human Understanding* (IV, xv, 3).

² Shelley, *Letter to Lord Ellenborough*.

perceptions of agreement—immediate, mediate or contingent. It was used alike for intuitive and demonstrative knowledge as well as *the belief* of Lockian philosophy. The description which Shelley gave, of the efforts of the mind to remove obstacles which prevent the perception of agreement from being immediate and certain, reminds us of a similar passage in Locke's *Essay Concerning the Human Understanding*.¹ Both the passages picture the human mind as eager to perceive agreement or disagreement of two ideas, both describe it as endeavouring actively to discover these relations for which it is searching and the indebtedness of Shelley to Locke is, so far as this aspect of the question is concerned, too patent to be questioned.

Locke was very careful to point out, define and analyse
The Grounds of
Belief.
the grounds of probability on which beliefs and judgments (in the Lockian sense) are based. As he differentiated between knowledge, immediate and mediate, intuitive and demonstrative, on the one hand, and belief or probable judgment on the other, his conditions of assent have reference to the latter category alone. They have, accordingly been defined as twofold: "First, the conformity of anything with our own knowledge, observation, and experience and secondly, the testimony of others vouching their observation and experience." Shelley, on the contrary, used the term belief to include all types of assent and, under the influence of Hume regarded it, somewhat inconsistently, more as a passion than as a perceptive act.² He had, consequently, to include in his grounds of belief the basis of what Locke would call knowledge. It is, therefore only in the fitness of things that he should, in his *Necessity of Atheism*, postulate three bases for belief: *viz.*, (i) "The senses which are the sources of all knowledge to the mind; consequently their evidence claims the

¹ Locke, *Essay Concerning the Human Understanding* (IV, ii, 2), and Shelley, *Notes on Queen Mab*, VII, 13.

² Cf. "Belief, then is a passion" (*Necessity of Atheism*, cf. *Notes on Queen Mab*, VII, 13, also Letter to Lord Ellenborough).

strongest assent." Knowledge derived from sensation is, according to the poet, more certain than that derived from anything else. In coming to this conclusion Shelley seemed to have been more influenced by later philosophers than by Locke. Instead of regarding sensitive knowledge as certain the philosopher did not include this type of knowledge within the province of knowledge at all. He was distinctly of opinion that it could not be as certain as intuitive or even demonstrative truth; for he was always careful to remember the points of difference among them all. "There is," he observed, "indeed another perception of the mind employed in the particular existence of finite beings without us; which going beyond bare probability and yet not reaching perfectly to either the foregoing degrees of certainty, passes under the name of knowledge." The only thing which can be ascertained from our sensations is the existence of ideas in our mind; and it is doubtful "whether we can thence certainly infer the existence of anything without us." The certainty that we have about these objects is not as strong as that of intuitive or demonstrative truths but it is "as great as our happiness or misery, beyond which we have no concernment to know or to be."¹ By regarding this type of evidence as the most certain Shelley proved himself unable to appreciate the true standpoint of Locke or even understand the minute analysis of experience which formed the ground-work of his philosophy.

The second ground of belief or knowledge is, according to Shelley, "the decision of the mind, founded upon our own experience, derived from these sources claims the next degree." This statement is too vague to carry any definite meaning. Does "decisions of the mind" include the intuitive recognition of truth? or does it merely denote demonstrative knowledge? The illustrations that the poet himself gave of such "decisions of the mind" under the sub-title *Reason* leave us no doubt that, at least, in the *Necessity of Atheism* he was referring to reasoning in the Lockian sense of the term. The philosopher pointed

¹ Locke, *Essay Concerning the Human Understanding* (IV, ii, 14).

out that "though we have, here and there, a little of this clear light, some sparks of bright knowledge; yet the greatest part of our ideas are such that we cannot discern their agreement or disagreement by an immediate comparing of them. And in all these we have need of *reasoning* and must, by discourse and inference, make our discoveries."¹ The whole trend of description and illustration in the *Necessity of Atheism* show a very close approximation to this description in Locke. In fact the arguments which he refuted in this treatise were precisely those that Locke and his school adduced to prove that our knowledge of God is demonstrative.

The third ground of belief or knowledge is, according to Shelley, testimony, *i.e.*, the experience of others. The poet was, in this matter, closely following the arguments of Locke, though we miss in his bare assertion the sagacious observations with which the philosopher sought to guide future investigators of truth.

Apart from reason, intuitive or otherwise, Locke recognised a second principle which he called Faith. On Faith and Enthusiasm. An orthodox believer that he was, Locke sought to prove "the reasonableness of Christianity," to his contemporaries, to orthodox believers and Deists alike. Although he sought to base his Christianity on the scriptures alone, he had to accept divine revelation not only as a fact but as the very foundation of his religion. In Book III, Chapter XVI, of his *Essay* the philosopher pointed out that besides the intuitive, demonstrative and sensitive knowledge, and in addition to judgments of belief, there are "such supernatural events suitable to ends aimed at by Him who has power to change the course of nature" which must procure belief or assent though they may be contrary to ordinary observation.² There are also propositions which are above reason ; they must be accepted with

¹ Locke, *Essay Concerning the Human Understanding* (IV, xvii, 15).

² *Ibid* (IV, xvi, 13).

implicit confidence whether they represent any idea contrary to human experience or not. These are the revelations of God himself "beyond the discovery of our natural faculties" and, consequently, the "proper matter of Faith."¹ In spite of his orthodoxy, however, Locke could never forget his rationalistic outlook on life. Revelations might be certainly true; yet reason must judge "whether it be divine revelation or no."² Man must be sure that God has really spoken before he accepts them to be true. In fact, Locke denounced, in no uncertain terms, "enthusiasm" which, according to him, is responsible for all the absurdities, extravagant opinions and superstitious ceremonies which disfigure the different religions of the world. Thus influenced by enthusiasm, men begin to live in a world of dreams and make-belief. "Whatever groundless opinion comes to settle itself strongly upon their fancies is an illumination from the spirit of God and presently of divine authority; and whatsoever odd action they find in themselves a strong inclination to do, that impulse is concluded to be a call or direction from heaven and must be, obeyed."³ Reason is suppressed and, with its suppression revelation loses much of its value and significance.

Although his earliest romances are steeped in the atmosphere of orthodoxy Shelley could not accept in its entirety Locke's differentiation between the provinces of reason and of faith. On the contrary, as early as April 26, 1811, he twitted religionists for the undue emphasis they put on faith. He pointed out the absurdity of regarding faith as "one of the highest moral virtues," nay the very "foundation on which all others must rest." "The orthodox believers," Shelley very significantly observed, "think that he who has neglected to cultivate this has not performed one-third of his moral duties."⁴ His notes on *Queen Mab* are mainly devoted to the task of exorcising

¹ Locke, *Essay Concerning the Human Understanding* (IV, xviii, 7).

² *Ibid* (IV, xviii, 10).

³ *Ibid* (IV, xix, 6).

⁴ Shelley, *Letter to Hogg* (April 26, 1811).

supernaturalism from the domain of thought. The sceptical doubts which the poet so elaborately expressed against the existence of miracles,¹ or the truth of prophecies are all directed against the claims of Christianity to be based on divine revelations. The efforts of the poet in this direction were more or less due to the influence of Hume. The sceptical doubts of Hume with his solutions as sceptical as the doubts themselves, were, at this particular period of life, exercising a paramount influence on the mind of Shelley. Yet even now, the poet would often use Locke's arguments for clearing the issues. While discussing the question of individual inspiration, Shelley, in a passage reminiscent of Locke's arguments in his chapter on *Enthusiasm*, pointed out the abuses to which such an idea often gives countenance. "Admitting, however, the influence or possibility," observed Shelley, "of a divine revelation, unless we demolish all foundations of human knowledge, it is requisite that our reason should *previously demonstrate its genuineness*; for before we extinguish the steady ray of reason and common sense, it is fit that we should discover whether we cannot do without their assistance, whether or no, there be any other which may suffice to guide us through the labyrinth of life! For, if a man is to be inspired on all occasions, if he is to be sure of a thing because he is sure, if the ordinary operations of the spirit are not to be considered very extra-ordinary modes of demonstration, if enthusiasm is to usurp the place of proof and madness that of sanity, all reasoning is superfluous."² There is an unmistakable ring of Locke in these arguments and Shelley was honest enough to indicate the source from which he had taken his materials. It was "Locke's Essay Concerning the Human Understanding, Book IV, Chapter XIX, On Enthusiasm."³

Although Hume was gradually replacing Locke in the
Knowledge of Self
and of Other Minds. estimation of the poet, and under his influence Shelley was leaning more and more

¹ Shelley, Notes on Queen Mab, VII, ll. 135-36.

² *Ibid.*

³ *Ibid.*

towards sensationalism yet he recognised in his *Speculations on Metaphysics* the intuitive nature of at least a part of our knowledge. Locke had observed that "nothing can be more evident to us than our own existence. I think, I reason, I feel pleasure and pain; can any of these be more evident to me than my own existence? If I doubt of all other things, that very doubt makes me perceive my own existence and will not suffer me to doubt of that."¹ Following very closely the arguments of the philosopher, Shelley also felt that "we are intuitively conscious of our own existence and of that connection in the train of our successive ideas which we term our identity."² In his conception of our identity as a mere connecting link rather than a sub-stratum of our ideas, the poet, however, differed widely from the standpoint of Locke and confessed the influence of Hume as well as of the associationist school of philosophy.

In the description that Shelley gave of the manner in which we acquire a knowledge of other minds he was, consciously or unconsciously, using two distinct lines of argument followed by the Experiential School. According to Locke and his followers one of the reasons which compel us to believe in the existence of external objects is the fact that the sensations they produce in our mind are involuntary. The ideas of memory are indeed responsive to our will; they are recalled or laid aside according to the sweet will of the person concerned. Not so, however, the sensations that we receive from the outside world. We feel that we cannot avoid them and hence come to the conclusion that they must be produced by some exterior cause whose efficacy we cannot resist.³ Again in matters which it is very difficult to observe or experiment upon, analogy, according to Locke, "is the only help we have and from that alone we draw all grounds of probability."⁴ Shelley combined both these arguments in his

¹ Locke, *Essay Concerning the Human Understanding* (IV, ix, 3).

² Shelley, *Speculations on Metaphysics* (I. The Mind).

³ Locke, *Essay Concerning the Human Understanding* (IV, xi, 5).

⁴ *Ibid* (IV, xvi, 12).

Speculations on Metaphysics and developed them in his own manner. "We can perceive the existence of other minds indeed, but not intuitively. The grounds of our belief in them are founded upon a very complicated relation of ideas." In our daily life we are conscious of "a periodical recurrence of masses of ideas which our voluntary determinations have, in one particular direction, no power to circumscribe or to arrest and against the recurrence of which they can only imperfectly provide." This then makes us believe in the existence of other minds. Our knowledge of their nature, however, we have to derive from analogy—a law according to which all similar deductions are made and which, Shelley admitted, "must be the foundation of all our inferences from one idea to another, inasmuch as they resemble each other."

So far as the theory of knowledge is concerned Shelley is thus found to be profoundly influenced by Locke, especially in very important aspects of his own standpoint. In fact while at Oxford he was, in certain matters, completely under the influence of Lockian Philosophy. There is, however, discernible, even at this early stage of his mental development, a tendency towards sensationalism which was due to the growing influence of later schools of thought both in England and in the Continent.

3

THE REACTION AGAINST LOCKE

During Shelley's residence at Oxford, there was, as has been already pointed out, a definite development discernible in the philosophical outlook of the poet which distinctly indicated that he was already questioning the validity of Locke's position. It has been already noticed how in his conception of the human identity, in his enumeration and description of the grounds of belief and also on many other problems Shelley was gradually developing ideas and theories completely at variance with Locke

and his school. In fact, the rationalistic bias which a study of Locke had imposed on the mind of the youthful thinker was now slowly but surely leading him to question many elements in the philosophy of his master. He was being insensibly drawn towards an interpretation of Locke's theory in terms of sensationalism; and in this peculiar evolution of his mind the influence of Hume played no insignificant part.

A similar movement away from Locke and distinctly towards Hume can be clearly traced in the evolution of the poet's idea of God. In the earliest romances of Shelley, both in *Zastrozzi* and in the *Rocicrucian* (*St. Irvyne*) Shelley was frankly a follower of the orthodox school of theology. The arguments against the existence of a First Cause are, according to the poet, merely sophistical.¹ Man's soul must acknowledge their falsehood, specially during hours of adversity. There are crises in his life when he must lift up his eyes to heaven for succour and solace. He must repent and in such moments of sincerest repentance God, in his infinite mercy, appears before the contrite heart. "From the height of heaven, he penetrates the inmost thoughts of terrestrial hearts" and "hears the outcast sinner" as he appeals to his mercy "in tears of agonising repentance." In hours of crisis, spiritual or otherwise, "when the firmest heart must tremble at His power," man has to invoke the benevolence of his Creator; and "mercy," so the future believer in the *Necessity of Atheism* asserted, "by the All-benevolent of Heaven, is never refused to those who humbly, yet trusting in His Goodness, ask it."²

The student of Locke and Hume could not, however, remain satisfied with such dogmatic assertions of traditionary beliefs. At least he could not render unquestioning obedience to the "received opinions of the world;" nor could he accept "that superstitious bigotry upon which, at present, the world acts, of

¹ Shelley, *St. Irvyne*, X.

² Shelley, *Zastrozzi*, XVI.

believing all that we are told as incontrovertible facts.”¹ This rationalistic outlook on life easily led to a probing and questioning of orthodox principles which sapped the very foundations of his faith. A period of transition followed ; the poet still clung to his older beliefs although he found the ground slipping from underneath his feet ; and it is very significant that the arguments by which he sought to strengthen his faith bore a very close resemblance to the theological speculations of Locke

Locke based his arguments regarding the existence of God on the “causal maxim that everything which has a beginning must have a cause.”² We cannot predicate anything of a ‘non-entity’ much less regard it as an active principle producing a real being. It naturally follows as an evident demonstration that there must be some Eternal Being, “since what was not from eternity must have a beginning ; and what had a beginning must be produced by something else.” Moreover man is intuitively conscious of his own self ; he has an “intuitive, infallible perception of his being.” In every one of his acts he knows with the highest degree of certainty “that he is something and not a non-entity.”³ The very existence of individual conscious subject, however, presupposes the demonstrative certainty (as Locke would have it) of the existence of a Being “who is eternal and from whom human personality derives its powers.” Thus from the consideration of ourselves and what we infallibly find in our own constitutions, our reason leads us to the knowledge of this certain and evident truth, that there is an eternal, most powerful and most knowing Being.⁴ This is, indeed, the very cornerstone of Locke’s belief in God. He, however, indirectly took cognisance of another argument when, referring to persons “senselessly arrogant” who regard “all the rest of the universe as acting by blind haphazard,” he reminded them of “the very

¹ Shelley, Letter to Hogg (Dec. 23, 1810).

² Locke, *Essay Concerning the Human Understanding*, X, 3.

³ *Ibid.*, IX, 3 ; also X, 2.

⁴ *Ibid.*, X, 6.

rational and emphatical rebuke of Tully—‘what can be more sillily arrogant and misbecoming than for a man to think that he has a mind and understanding, but yet in the universe beside there is no such thing? or that those things which, with the utmost stretch of his reason, he can scarce comprehend, should be moved and managed without reason at all?’ ”¹

In his letters written during this transitional period of his mental development Shelley sought to convince himself of the truth of the existence of God by using similar arguments. He could not understand how anything could exist without a cause. “When do we see effects without cause?” asked the poet significantly, “or what causes are there without corresponding effects?” Applying this theory to the human self Shelley very pointedly enquired, “can we suppose that *our Nature itself* could be without cause—a First Cause—God?”² This emphatic assertion that from *nothing* nothing can be derived, as well as the representation of God as the cause of our personality, our own self, prove how great was the influence which Locke was even then exercising over the mind of the poet. Elsewhere the same idea is more fully developed. “If we allow that the soul is not matter,” so argued Shelley, “then, admitting that this actuating principle is such as I have described, admitting it to be finite, there must be something beyond this which influences its actions and all this series advancing, as if it does in one instance, it must do in others, to infinity, it must at last terminate, if it can terminate, in the existence which may be called a Deity”² and it is nothing strange that after delivering himself of this complicated sentence the poet should complain that his head was becoming dizzy.

Nor was the second and less important consideration left untouched. This was the common deistic standpoint which sought the source of an ordered universe in a rational principle. Locke simply hinted at this idea without fully developing it ; to

¹ Locke, *Essay Concerning the Human Understanding*, X, 6.

² Shelley, *Letter to Hogg* (Jan. 3, 1811).

his mind the argument from the human personality was conclusive. Shelley, however, gave it far greater prominence than the philosopher. "I think," he pompously informed Hogg, "I can prove the existence of a Deity—a First Cause. I will ask the materialist, how came this universe at first? He will answer 'by chance.' What chance? I will answer in the words of Spinoza, 'An infinite number of atoms had been floating from all eternity in space, till at last one of them fortuitously diverged from its track, dragging with it another, formed the principle of gravitation, and in consequence, the universe. What cause produced this change, this chance? For where do we know that causes arise without their corresponding effects.....was not then this a cause, was it not a First Cause? Was not this First Cause a Deity?'"¹

This period of transition in the mental development of the poet was, however, very short-lived. The sceptical philosophy of Hume and the materialism of the French School of thought (which Shelley very often quoted in his notes on *Queen Mab*) stamped out the last flicker of belief in the mind of Shelley. Those very arguments with which he had sought to prop up his tottering faith were, in his *Necessity of Atheism*, refuted with ill-concealed contempt. He now repudiated *revealed* religion owing to his "perfect conviction of its insufficiency to the happiness of man" while his "rejection of the *natural religion* of the deists arose wholly from reason."² He had now no doubts whatsoever about the question of the existence of God and ridiculed his erstwhile teacher Locke for affirming "in a chapter of whose reasoning I leave your reason to judge, that there is a God."³

Locke recognised an intimate relationship between theology and ethics. Although nature may instil into the minds of

¹ Shelley, Letter to Hogg (Jan. 12, 1811).

² Shelley, Letter to Janet Phillips (May, 1811).

³ Shelley, Letter to Elizabeth Hitchener (June 11, 1811).

men a desire for happiness and an aversion to misery and these innate principles may govern all the activities of men yet they are mere impulses and appetites and not knowledge.¹ In fact, moral rules require proofs for their validity² and the conception of virtue current in human society varies according to different ideals of happiness.³ The true sanction of morality is, however, theological. Duties cannot be properly understood without reference to laws. Laws are unintelligible "without a Law-maker or without reward and punishment." The true ground of morality is, consequently, "the will and law of God." It involves "ideas of God, of obligation, and lastly of rewards and punishments." So long as man has no adequate ideas of these, he can never have any certain knowledge of what his duties are; he can, at best, form a vague, inchoate idea of morality. But "let any one see the fault, and the rod by it, and with the transgression, a fire ready to punish it; a pleasure tempting and the hand of the Almighty visibly held up and prepared to take vengeance...and then tell me, whether it be possible for people with such a prospect, such a certain knowledge as this, wantonly, and without scruple, to offend against a law which they carry about them in indelible characters and that stares them in the face whilst they are breaking it."⁴ God is, thus, the basis of all ethical principles; it is He who determines the characteristics of virtue and vice; it is He who assigns to each its appropriate reward or punishment. The ethics of Locke is the ethics of Mediaeval theology. It is solely based on love of rewards and fear of punishments; and, as such, it is far inferior to modern ideals and principles. The only criterion of this morality is pleasure and pain. "For God, having, by an inseparable connection, joined virtue and public happiness

Locke's theory of
Morals.

¹ Locke, *Essay Concerning the Human Understanding* (I, iii, 3).

² *Ibid.*, I, iii, 4.

³ *Ibid.*, I, iii, 6.

⁴ *Ibid.*, I, iii, 12.

together, and made the practice thereof necessary to the preservation of society and visibly beneficial to all with whom the virtuous man has to do ; it is no wonder that every one should not only allow, but recommend and magnify these rules to others."¹ Some reward or punishment must be associated with every law of morality. For it is this "enforcement of good and evil" which alone can determine man's will.²

Rewards and punishments have, however, greater association with a future state than with the present; our actual life of everyday experience is, more often than not, a mere arena for the inter-play of stupendous forces which do not always conform to rules of poetic justice. In course of our existence on earth below we have to witness many events which seem to shake to its very foundations our ideals of moral justice. The moral philosopher has, consequently, to fall back upon a future state where even-handed justice will be meted out to all. The only proof, however, that Locke could adduce in favour of his belief in the immortality of the soul was derived from the scriptures. It was Jesus Christ who "brought life and morality to light through the gospels."³

It is very interesting to observe the gradual transition from orthodoxy to utilitarian ethics in the mind of Shelley. Previous to his study of rationalistic and deistic literature the poet's conception of morality and of rewards and punishments was determined, more or less, by the atmosphere of thought in the midst of which he had so long been living. Even the hardened criminal in his early romances shrank at the prospect of being punished for crimes he had himself perpetrated in the past. Matilda for instance recoiled from even a cursory contemplation of death and her mind was at once overwhelmed with fears of what lay in store for her in a future state.⁴ She was convinced that

¹ Locke, *Essay Concerning the Human Understanding* (I, iii, 6).

² *Ibid*, II, xxviii, 4-5.

³ Locke, *Letter to the Bishop of Worcester*.

⁴ Shelley, *Zastrozzi*, Chapter XVI.

unless she repented, she might have to suffer fierce and horrible torments for eternity.¹ Wolfstein similarly reflected with consternation on the time when "damnation would yawn beneath his feet and he would shrink from eternal punishment before the tribunal of that God whom he had insulted."² In life on earth the vicious man may, indeed, triumph but in the future life everything will be changed. "Yet superior as the fool here supposes himself to be to the creature whom he injures, superior as he boasts himself he may howl with the fiends of darkness in never-ending misery,"³ whilst the injured person "receives at the throne of God the rewards of his 'unsuspecting excellence.'"³ God is, in fact, represented as the arbiter and judge of man's destiny; He metes out rewards and punishments according to the deserts of each individual man. The Future State is, similarly, a condition of life in which the virtuous prosper and the vicious suffer eternal torments. It is not possible at this distant date to determine, with any degree of assurance, whether the poet derived these ideas from Locke or imbibed them from the orthodox traditions of his own family. But there is an unmistakable resemblance between his standpoint and that of Locke. Moreover the enthusiasm of Shelley for Locke, specially during his residence at Oxford, is a well-known fact.

In course of time, however, Shelley's 'willing suspension of disbelief' in traditional views was considerably shaken by newer developments of contemporary thought. The influence of Hume was overshadowing everything else. In the poet's *Speculations on Morals* there is a distinct tendency towards a complete rejection of orthodox opinions. In the first chapter of the treatise, 'On the Nature of Virtue' Shelley gave a very faithful, almost literal interpretation of the ethical theories of Locke, only to reject them as false. "It has often been held," Shelley pointed out, "that no person is bound to be just or kind, if, on his

¹ Shelley, *Zastrozzi*, Chapter XVII.

² Shelley, *St. Irvyne*, Chapter III.

³ *Ibid*, Chapter IX.

neglect, he should fail to incur some penalty. Duty is obligation. There can be no obligation without an obliger. Virtue is a law, to which, it is the will of the law-giver that we should conform ; which will, we should, in no manner, be bound to obey, unless some dreadful punishment were attached to disobedience." Shelley applied the methods of analysis and introspection which Locke had done so much to establish to a criticism of the philosopher's own principles. A man comes back "self-satisfied" from the performance of a virtuous act. He has willingly conferred "extensive benefits" upon his fellow-men. Does he, in his behaviour, give us any the slightest hint from which we can infer that "the anticipation of hellish agonies or the hope of heavenly reward had constrained him to the act?" Is it not, on the contrary, plainly discernible from his manner that no such idea has impelled him to the benevolent action?¹

Nor could the poet accept Locke's theory that we must annex to the moral laws some good or evil, some reward or punishment, which is not the natural product and consequence of the action itself. The morality and immorality of our action, according to Shelley, does not, in the least, depend on such an arbitrary addition of good and evil. "Nothing is more evident than that the epithet virtue is inapplicable to the refraining from that action on account of the evil arbitrarily attached to it." Even if the act itself is beneficial, so Shelley affirmed, "virtue would rather consist in not refraining from it, but in firmly defying the personal consequences attached to its performance."¹ In fact, the very suspicion of self-interest takes away from the merits of such an action however virtuous it may, at first sight, appear to be. It "has a tendency to pollute the purity of virtue as it consists in the motive rather than in the consequences of an action." The poet was thus more discerning than the philosopher in his analysis of the human mind on which he sought to base his moral theories. Locke, in spite of his acute intellect, had lost sight

¹ Shelley, *Speculations on Morals*, Chapter II.

of the fact that moral judgment deals primarily not with the outward result of any action but with the intention of the actor; and it is quite in the fitness of things that Shelley, one of his disciples in the school of introspective analysis, should point out this defect and thus challenge the correctness of his theory itself. The disciple, however, went still further. He did not scruple to call Locke's moral philosophy "the philosophy of slaves and superstition." It was based on a "common sophism, which like many others, depends on the abuse of metaphorical expressions to a literal purpose, and has produced much of the confusion which has involved the theory of morals."

Equally emphatic was Shelley in his criticism of the view that laws are nothing but the will of the law-giver. Such arbitrary standards should, in his opinion, be repudiated as false and injurious. In order to bring out the absurdity of such a theory as developed by Locke in his *Essay*, the poet placed before his readers a hypothetical case which conformed to the main ideas of the ethical doctrines of Locke with a slight variation regarding the nature of God. "A usurper of supernatural energy" conquers the world. He possesses "new and unheard of resources for inducing his punishments with all the most terrible attributes of pain," so that any one who transgresses his arbitrary behests might suffer from torments "intense in their degree and protracted to an infinite duration." Does this very fact of omnipotence or of eternal punishment make "the will of such a law-giver" a criterion of right or wrong? "The will of the law-giver" on which Locke placed so great an emphasis is not, consequently, an absolute standard of morality. On the contrary, those who have the courage to refuse, like Shelley's Prometheus, to "become the instruments" of such an arbitrary Being will have every claim to be respected as honourable and virtuous men.¹

Unlike Locke again, Shelley would keep the question of rewards and punishments entirely separate from the problem of

¹ Shelley, *Speculations on Morals*, Chapter II.

the immortality of the soul or of the existence of a Future State. In his criticism of current opinions regarding the truth or otherwise of the immortality of the soul, Shelley's attitude was that of an enquirer, pure and simple. He was fully aware of the fact that "If it be proved that the world is ruled by a Divine power, no inference necessarily can be drawn, from that circumstance, in favour of a Future State."

Not only so, the poet was also careful enough to recognise the truth of the further corollary that "even if a future state be clearly proved it does not necessarily follow that it will be a state of reward or punishment."¹ The sceptical outlook of Shelley compelled him to analyse the orthodox ideas of morality. As a result of his analysis he proceeded to divest the problem of all irrelevant accretions and based it on more rational principles.

The age in which Locke developed his philosophical system was an age of transition. Rationalism had not, as yet, fully established itself. It had simply cleared away some of the grosser superstitions and broken down the barriers of dogmatism. The fundamental principles, specially of theology, were seldom disturbed. The philosophers and thinkers of that period sought to develop a rational system of thought indeed but their entire outlook was restricted within the province defined by the central beliefs of the Protestant faith. They could not understand, far less appreciate, any new theory fundamentally opposed to the Christianity they professed. Not that there was no contradiction between the modern world of scientific thought and the older conceptions of theology. On the contrary, the discoveries of science were already rousing honest doubts in the minds of men about the facts of Biblical history which they had, so long, regarded as revelations. In fact, "the contrast had become too unmistakable to be easily masked;" yet it was sincerely felt, specially by men who recognised "the immense importance

Locke's standpoint
in Theology.

¹ Shelley, *On a Future State*.

to mankind of religious beliefs," that a synthesis between these two inconsistent orders of ideas might be arrived at by a wider interpretation of the principles of orthodox faith. The substance of the two creeds might then be regarded as identical and thus a "reasonable" type of Christianity might be formulated. Locke belonged to this half-rationalistic and half-theological group of thinkers. He was one of those who recognised the absolute necessity of moral laws for the preservation of society; and also the prominent part played by religious belief in the enforcement of these laws. The very term atheism, or even scepticism, he could not tolerate. "Those are not to be tolerated," he emphatically asserted, "who deny the being of God. Promises, covenants, and oaths *which are the bounds of human society can have no hold on an atheist*. The taking away of God, though but even in thought, dissolves all."¹ Such a thinker can never undermine by his speculations the foundations of faith which is the cement of society. On the contrary, he will strive to strengthen the influence of religion on the minds of men. He will sweep away the "rubbish" of theologians in order that the true superstructure of religion might be apparent to all.

This is exactly what Locke sought to do in his *Reasonableness of Christianity*. He attempted to bring back Christianity to the norm of the scriptures and elucidate its fundamental principles. He extolled Christianity for its salutary influence on morals. "It is at least a surer and shorter way to the apprehension of the vulgar mass of mankind, that one manifestly come from God and coming with visible authority from Him should, as a king and law-maker, tell them their duties and require their obedience than leave it to the long and sometimes intricate deductions of reason to be made out to them." The system of Christian theology which Locke developed was, at best, a compromise between traditionary ideas and rational principles. It "did not recognise the hereditary taint of original sin and was silent about the atonement but it recognised

¹ Locke, *Essay on Toleration*.

the infallibility of the scriptures and accepted the miracles as real." The deistic controversy which marked the middle and the latter part of the eighteenth century gradually exposed the absurdity of such compromises. The light of reason which was brought to bear upon the controversies of the day produced in the minds of all honest doubts regarding the supernatural virtues claimed for the Christian faith, and the infallible nature of scriptural authority was seriously challenged. The speculations of Hume, of Voltaire and the Encyclopaedists, further undermined the orthodox position. It was no longer possible for any man, far less for one of Shelley's revolutionary temperament, to appreciate or even understand the Lockian spirit of compromise. He was now a thorough-going rationalist; he had the courage to carry his arguments to their logical conclusion and could accept no principle which did not stand the most rigid tests of analysis and criticism.

Shelley himself confessed in his letters that he had been an "enthusiastic deist" before he became a confirmed atheist. During his stay at Oxford he had read the works of a large number of philosophers, English and French, and the nature of several arguments used by him in his *Refutation of Deism* confirms the view that he was not unacquainted with the deistic standpoint. To a man so nurtured, the absurdity of Locke's position would be clear in no time. He could, indeed, understand and accept Locke's theory of knowledge or his conception of simple and complex ideas; what he could neither understand nor appreciate was Locke's anxiety to prove the existence of God and the infallibility of the scriptures. "Locke proves this (that there can be no innate ideas) by induction too clear to admit of rational objection." "He affirms," continued the poet "in a chapter whose reasoning I leave your reason to judge that there is a God; he affirms also and that in a most unsupported way that the Holy Ghost dictated St. Paul's writings."¹ "Which are we to prefer?" asked the poet plaintively, "the proof or the

¹ Shelley, Letter to Elizabeth Hitchener (June 11, 1811).

affirmation?" Nor could Shelley, after his recent experiences of Christian bigotry, accept the view of Locke that Christianity strengthens virtue. At that particular period of his life Christianity was identified by this exasperated sceptic with all that is hateful and immoral in life. Although in maturer age Shelley made some amends for his ill-conceived and intemperate vituperations against Christianity, his conception of that particular faith and its founder was quite different. He carried the Lockian analysis of Jesus' character to its logical conclusion and in the light of his criticism Jesus stands forth as a saintly personage, without anything miraculous or supernatural about him, uttering his sublime precepts in the most rational manner possible.¹

From a study of the poet's writings during the most formative period of his life it is evident that although he was considerably influenced by Locke yet, very early in life, there is discernible a distinct tendency to move away from the compromise of Locke to a more thoroughly rationalistic standpoint—a standpoint which was plainly due to the influence on his mind of later thinkers, specially Hume.

4

HUME AND SHELLEY.

The scientific tendency of the eighteenth century considerably influenced the mind of its greatest thinkers. One after another, all those domains of thought which, in earlier ages, had been reserved for theology and regarded as outside the scope of human intellect, gradually came to be subjected to the scrutiny of the positive methods of analysis and experiment. The boundaries of human knowledge were extended in all directions, so much so, that the supernatural and the mysterious lost much of their influence on the human

Theory of Morals.

¹ Shelley, *Essay on Christianity*.

mind. Thus morality which even Locke had founded on the basis of the will of a supernatural lawgiver was gradually transformed into a positive science. Hume was aware of ethical principles concerning which a much stricter and a more scientific enquiry was not only possible but desirable. The process of this enquiry did not, in his opinion, differ, to any appreciable extent, from the methods followed in other departments of human knowledge. Emphasis was laid equally on analysis and observation. We must "discover the circumstances on both sides, which are common to these qualities," "observe that particular in which the estimable qualities agree on the one hand and the blamable on the other, and after such analysis and observation reach the foundation of ethics, and find those universal principles (or laws) from which all censure or approbation is derived." The entire method is inductive in nature rather than deductive and there are indications in Hume's *Enquiry* itself, which show that the author was conscious of this distinction. He understood full well that "the experimental method" "deducing," as it did, "general maxims from a comparison of particular instances" was essentially different from that "other scientific method where a general abstract principle is first established and is afterwards branched out into a variety of inferences and conclusions." Morality with him was, however, a question of fact and not of abstract sciences (like Mathematics) and consequently must be scientifically treated. Attempts had, indeed, been made in the past to develop a system of ethical principles based entirely on abstract reasoning, but such a system, however "subtle or ingenious," it may, at first sight, appear to be, Hume ruthlessly criticised and unceremoniously rejected. Ethics with Hume is a positive science "based on fact and observation."¹

The progress of science was much more marked during the age of Shelley than during the eighteenth century. The principles which Locke stated and Hume sought to elaborate, had, by the

¹ Hume, *Enquiry Concerning the Principles of Morals*, Sec. 1, *Hume's Enquiries*, Ed. by L. A. Selby-Bigge, 2nd Edition, pp. 174-75.

time that Shelley came to write or to reason, firmly established themselves in the domain of English thought. It was, therefore, only natural that the poet should accept the ideas and opinions prevalent in his age and proceed to lay special emphasis on experience as the basis of all speculations, metaphysical or ethical. Morals and Metaphysics are but two aspects of the same "great science which regards the nature and operations of the human mind." Metaphysics, according to him, classifies and assigns names to mental concepts while Ethics regards simply the "determination of that arrangement of them which produces the greatest and most solid happiness." In its methods of enquiry there is absolutely no difference between morality and other sciences. Morality is a *positive science*, the province of its investigations being confined to the "voluntary actions" of man as a sentient and social being. It does not rest satisfied with a mere superficial observation of things; it goes deeper and seeks to analyse them into their elementary principles. It enquires into ulterior motives and springs of action and tries to discover the laws which govern their operations. The entire superstructure is firmly based on facts of human experience and is painfully brought together according to the strictest laws of scientific investigation. Ethics, according to Shelley, must state "in what manner the sensations which constitute the basis of virtue originate in the human mind; what are the laws which it receives there; how far the principles of mind allow it to be an attribute of a human being; and, lastly, what is the probability of persuading mankind to adopt it as a universal and systematic motive of conduct." There are obvious points of resemblance between Shelley's standpoint and that of Hume as expressed in his *Enquiry Concerning the Principles of Morals*; and we might have explained them away as due to the intellectual environment of the poet, if we had not known how eagerly Shelley read and re-read these Enquiries as embodied in the authentic editions of Hume's Essays. The letters of this youthful thinker specially during his residence at Oxford are

replete with references to the doctrines and arguments of Hume and in several of them we can very clearly trace the influence of this philosopher's "sceptical solutions" of doubts concerning the operations of the Human Understanding.

The scientific nature of ethical speculations once fully established, the most fundamental question which confronts the moral philosopher is that of the basis of moral distinctions. Are they derived from reason or from "an immediate feeling" or again from "a finer internal sense?" There was, indeed, in the days of Hume considerable divergence in the opinions of men on this particular problem. Some sought to derive morality from *a priori* conclusions of the human intellect while others again regarded it to be the province of moral sentiments. Hume from his eminently rationalistic standpoint criticised both these theories. He pointed out that "no man reasons concerning another's beauty but frequently concerning the justice or injustice of his actions,"¹ and the basis of his morals being utility a very accurate reason or judgment is absolutely necessary "to give the true determination, amidst such intricate doubts"² arising from observation of opposite qualities. Yet Reason can only enlighten, it can never inspire. It can, after a close analysis, instruct us in the pernicious or useful tendency of qualities and actions; it can discover truth and enrich our mind with its conclusions.³ Morality, however, is of a more practical nature. It seeks not only to discover truth but regulate human conduct as well. It must have a firm "hold on the affections" of men and "set in motion" their active powers. It must take possession of the human heart and inspire it with warm feelings of approbation or disapprobation.⁴ It is requisite, therefore, as Hume observed, that a sentiment should influence the mind of man, in

¹ Hume, *Enquiry Concerning the Principles of Morals*, Sec. 1. *Ibid*, p. 171.

² *Ibid*, Appendix I. (*Ibid*, p. 286.)

³ Hume, *Enquiry Concerning the Principles of Morals*, Sec. 1. *Ibid*, p. 172.

⁴ *Ibid*, Sec. 1. *Ibid*, p. 172.

order to give a preference to the useful above the pernicious tendencies.¹ "Reason instructs us in the several tendencies of actions, and humanity makes a distinction in favour of those which are useful and beneficial;" so that "the ultimate ends of human actions can never, in any case, be accounted for by reason, but recommend themselves entirely to the sentiments and affections of mankind without any dependence on the intellectual faculties."²

As early as 1810, Shelley had been attracted to Godwinian philosophy. He had read *Political Justice* and had risen, from its perusal, an altogether different man. The arguments of this eminent rationalist had fascinated him and he accepted, without any hesitation whatsoever, the Godwinian ideal of man as an embodiment of intellect. "Perfect virtue is far from attainable," simply because, "reason is tainted by feeling" and he was constrained to lament that the human mind oftentimes exhibits a picture of irreconcilable inconsistencies.³ Man's essential characteristics will be lost if he does not develop his intelligence. Moreover reason is, according to him, the surest guide to virtue; through it alone can men grasp truth in all its beauty and grandeur. Unlike Hume, Shelley was, at this early stage of his life, fully convinced that an appeal to reason, or, to quote his exact words, "intellectual opposition to counteract the abuses of society."⁴ is the only way in which reforms can be brought about. Such appeals can inspire an entire nation and instil into it new aspirations, "warmer zeal" and "nobler hopes." They can move men strangely and transform them into enthusiastic supporters of the cause of virtue.⁵

In his *Enquiry Concerning the Principles of Morals*, Hume pointed out a common error into which moral philosophers of the rationalist school are apt to fall. "Our affections,"

¹ Hume, *Enquiry Concerning the Principles of Morals*, Appendix I. (*Ibid.*, p. 286.)

² *Ibid.*, Appendix I. *Ibid.*, p. 286 and p. 223.

³ Shelley, Letter to Elizabeth Hitchener (June 20, 1811).

⁴ Shelley, Address to the Irish People.

⁵ Shelley, *Revolt of Islam*, IV, xiii, *et seq.*; also VIII, xxiii, *et seq.*

he observed, "are roused by a general prospect of their objects, from certain rules of conduct, and certain measures of preference of one above another; and these decisions, though really the result of our calm passions and propensities, are yet said, by a natural abuse of terms, to be the determinations of *pure* reason and reflection."¹ Shelley could not, for any considerable period of time, continue to persist in this mistaken view. He had to abandon, very early in life, the Godwinian standpoint. For his analysis of the human mind made him conscious of the composite nature of our moral judgments. Reason is no longer "a cold and insensible arbiter"; it is, on the contrary, "an assemblage of our better feelings, passions considered under a peculiar mode of its operation."² This intuition gradually compelled the poet to develop an idea of morality altogether different from Godwin's. We may not find in his *Speculations on Morals* any definite or elaborate exposition of the part played by reason and emotion in forming our moral judgments. But the very way in which he defines virtue as involving not only "the desire to be the author of good" but also "the apprehension of the manner in which it ought to be done"³ shows the unmistakable influence of Hume. Not only so, he, in his later life, came fully to recognise that mere reason, unless inspired and strengthened by emotions, can never move men; "reasoned principles of moral conduct" are then mere "seeds cast on the high-way of life which the unconscious passenger tramples into dust."⁴ We must "love and admire" before they can influence our actions.

Some philosophers in Hume's days were of opinion that the basis of our moral judgments is self-love. This theory, Hume asserted, is opposed to experience. He could not accept their contention that every man perceives how impossible it is

¹ Hume, *Enquiry Concerning the Principles of Morals*, VI, i. *Ibid.*, p. 239.

² Shelley, Letter to Hogg (Feb. 7, 1813).

³ Shelley, *Speculations on Morals*.

⁴ Shelley, Introduction, *Prometheus Unbound*.

for him to lead an isolated existence and has, therefore, to become "favourable to all those habits and principles which promote order in society and ensure to him the quiet possession of so inestimable a blessing."¹ On the contrary, man praises actions which are oftentimes against his own interests or too remote in place or time to affect him. "We have found instances, in which private interest was separate from public, in which it was even contrary. And yet we observed the moral sentiment to continue, notwithstanding this disjunction of interest."² Though self-love might not be directly the basis of moral judgments yet, according to Hobbes and his school, it might indirectly determine our approval or disapproval of particular actions. We might transport ourselves, "by the force of imagination, into distant ages and countries, consider the advantage, which we should have reaped from these characters, had we been contemporaries and had any commerce with them."³ There are, however, cases in which public interest outweighs private; these cannot be explained on the hypothesis enunciated by Hobbes and his associates. Imagination of another's interest, Hume was very careful to point out, cannot, on any account, be regarded as stronger than a present view of that of our own.⁴ Not only so, can this doctrine of refined selfishness explain our approbation of qualities useful to the possessor? Can we, through our imagination, suddenly convert ourselves into another person and as suddenly return to ourselves? Is it not, rather, more probable that there is, inherent in our own nature, a principle which makes us prefer actions on account of their general utility as opposed to individual interest?"⁵

¹ Hume, *Enquiry Concerning the Principles of Morals*, Sec. V, i. *Ibid.* p. 215.

² *Ibid.* V, ii. *Ibid.* p. 219.

³ *Ibid.* V, i. *Ibid.* p. 217.

⁴ *Ibid.* V, i. Cf. "It is not conceivable how a *real* sentiment or passion can ever arise from a known imaginary interest; specially when our *real* interest is still kept in view and is often acknowledged to be entirely distinct from the imaginary and even sometimes opposite to it." (*Ibid.* p. 217.)

⁵ *Ibid.* VI, i. *Ibid.* p. 234.

There are, however, a thousand marks of an altruistic element in the human personality which, on a closer analysis, reveals itself as the basis of morality.¹ "It is through sympathy that everything which contributes to the welfare of society recommends itself to our approbation." Benevolence or sympathy may, indeed, vary with distance both in place and time, yet such variations are eliminated by our calm judgments through the intercourse of sentiments with other men. A general and unalterable moral standard is thus formed, and we apply it for judging all actions however remote in time or place they may be.² In fact the sentiment of humanity or benevolence and the sentiment of morality are originally the same. "The same endowments of the mind, in every circumstance, are agreeable to the sentiment of morals and to that of humanity; the same temper is susceptible of high degrees of the one sentiment and of the other, and the same alteration in the objects by their nearer approach or by connexions enlivens the one and the other."³ It is the only sentiment which is both common and comprehensive enough to form the basis of morals. It is so universal as to extend to all mankind and render the actions and conduct of the persons the most remote, an object of applause or censure.⁴ The whole merit of this sentiment, however, arises, according to Hume, who is a thorough-going utilitarian, from its tendency to promote the interests of our species and bestow happiness on human society.⁵

Benevolence, Hume pointed out, builds up happiness like a wall, justice builds it like a vault.⁶

The rules of justice are all more or less necessary for the stability of society. Men are so peculiarly

¹ Hume, *Enquiry Concerning the Principles of Morals*, Appendix II. *Ibid.*, p. 300.

² *Ibid.*, V, ii. *Ibid.*, p. 229.

³ *Ibid.*, VI, i. *Ibid.*, p. 235.

⁴ *Ibid.*, IX, i. *Ibid.*, p. 272, also p. 273.

⁵ *Ibid.*, IX, i. *Ibid.*, pp. 272-73.

⁶ *Ibid.*, Appendix III. *Ibid.*, p. 305.

situated that, although they might have a thousand reasons for being partial to themselves or to their friends, they find that, for the preservation of the social superstructure on which they depend for their very existence, they have to render implicit obedience to laws of equitable conduct. Nature does not bestow on us benefits in an unlimited abundance. On the contrary, "few enjoyments are given us from her open and liberal hand." We feel that we can obtain them in great abundance only by art, labour and industry. Hence the ideas of property gradually acquire supreme importance in all civil society and justice which secures to man the fruits of this labour becomes one of the main foundations of morality.¹ It is utilised not only for promoting public interest as in the case of benevolence but also for ensuring peace and security among mankind. But in every case of applying the laws of equity, practical considerations must always be the guiding principle. For instance, though man's most obvious thought might be to assign the largest possessions to the most extensive virtue and give every one the power of doing good, proportioned to his inclination; yet "were mankind to execute such a law; so great is the uncertainty of merit, both from its natural obscurity and from the self-conceit of each individual that no determinate rule of conduct would ever result from it and the total dissolution of society must be the immediate consequence."² Similarly the doctrine of an equal distribution of wealth, though plausible at first sight and actually adopted to an imperfect degree by small states like Sparta with marked beneficial results, is really impracticable at the present stage of social progress. Nay more, it is, as Hume emphatically asserted, pernicious inasmuch as it checks the exercise of such human virtues as art, care and industry. Instead of preventing want and beggary in a few, it renders the entire community poor.³

¹ Hume, *Enquiry Concerning the Principles of Morals*, III, i. *Ibid*, p. 188.

² *Ibid*, III, ii. *Ibid*, p. 193.

³ *Ibid*, III, ii. *Ibid*, p. 194.

The rules of justice then existing in society were sought to be defended by Hume from his own common sense point of view. "Who sees not," he asked, "for instance, that whatever is produced or introduced or improved by man's art or industry ought, forever, to be secured to him in order to give encouragement to such *useful* habits? That the property ought also to descend to children and relations for the same *useful* purpose? That it may be alienated by consent in order to beget that commerce and intercourse, which is beneficial to human society?"¹

Like Hume, Shelley could not accept the theory that self-love is the basis of morality. The immediate emotions of human nature, he was always careful to point out, are far removed from morality, they "prompt him to inflict pain and to aggregate dominion." Prompted by selfish instincts man becomes relentless in the pursuit of his own prosperity;² yet the highest instincts of his nature recoil against these primitive tendencies. Like the Scottish philosopher, the poet examined the general experience of man and found in history numerous instances where private interests were sacrificed at the altar of duty.³ Regulus and Scaevola were persons who made "very slight estimate" of their private interest. In fact, virtue or merit depends on the motive of an action rather than on its consequences. Considerations of self-interest, therefore take away much from the merit of an action; they have as Shelley very truly observed, a tendency to pollute the purity of virtue rather than strengthen it.⁴ "Selfishness," the poet never failed to reiterate, "is the offspring of ignorance and mistake"; it is the portion of unreflecting infancy, savage solitude, or of those whom toil of evil occupations have blunted and rendered torpid.⁵ It can never form the basis of morality. On the contrary, "an

¹ Hume, *Enquiry Concerning the Principles of Morals*, III, ii. *Ibid*, p. 195.

² Shelley, *Speculations on Morals*, Chapter I, Benevolence.

³ *Ibid*, Chapter I, Benevolence.

⁴ *Ibid*, Chapter II.

⁵ *Ibid*, Chapter II.

action is often virtuous in proportion to the greatness of the personal calamity which the author willingly draws upon himself by daring to perform it.”¹ Again: “it is because an action produces an overbalance of pleasure and pain to the greatest number of sentient beings and not merely because its consequences are beneficial or injurious to the author of that action, that it is good or evil.”² In the moral speculations of Shelley, Hume’s arguments are supplemented by many subsidiary considerations; yet the appeal to experience, and the general idea underlying them clearly point to the influence of the philosopher on the mind of the poet.

Shelley admitted the prominent part played by imagination in the development of a social sense. His explanation, however, differs widely from what is commonly advanced. We are not “transported to distant countries or distant ages” nor do we “calculate the advantages which might have accrued to us if we had been contemporaries.” On the contrary, the poet proceeded to give an interesting psychological analysis of the evolution of sympathy. A human child is selfish simply because he has “a very imperfect consciousness” of other beings endowed with similar powers and similar sensibilities. It is then too much absorbed in its efforts, for “the extinction of the pains with which it is perpetually assailed,” to do anything else. In course of time, however, it becomes aware of other existences; it observes their gestures, and accents, and by analogy, imagines, or rather, “discovers that it is surrounded by natures susceptible of sensations similar to its own.” Meantime it has experience of pain in its own person and has developed an idea that such sensations are undesirable. When it comes to understand from “gestures significant of pain,” that others also suffer, there is gradually awakened in its mind a desire that such painful experiences should cease. This general idea, however, gathers shape without “any other reference to the

¹ Shelley, *Speculations on Morals*, Chapter II.

² *Ibid*, Chapter II.

mind by which existence of pain is perceived than such as is indispensable to its perception." Thus gradually man comes to abhor evil in and for itself and it does not matter whether such evil affects his personality immediately or is too remote to influence it.

The passive and unconscious tendencies of original sensations, which centred round self-preservation, are now subordinated to the more active powers of sympathy and in this transition from self-love to sympathy, imagination, as has been already pointed out, acts as an effective instrument. It widens the sympathies of man by acquainting him with the feelings of pleasure or pain active in the heart of his fellow-beings. As imagination is strengthened by culture in civilised society, its inhabitants sympathise more acutely with the sufferings and enjoyments of others. In fact "the only distinction between the selfish man and the virtuous man is that the imagination of the former is confined within a narrow limit while that of the latter embraces a comprehensive circumference" thus enabling him to sympathise with an ever-widening circle of fellow-men. This sympathy or disinterested benevolence which results from a cultivated imagination is the ultimate basis of morality. Like Hume, Shelley found in the ordinary experiences of man a thousand indications of its actual working. Patriotism, love, chivalry,—all were cited as examples to prove that "according to the elementary principles of mind, man is capable of desiring and pursuing good for its own sake." Like Hume again, he recognised the fact that benevolence is an elementary emotion of the human heart. It is on these elementary emotions of disinterestedness that morality is ultimately based. "All the theories which have refined and exalted humanity or those which have been desired as alleviations of its mistakes and evils" have for their foundations these feelings of sympathy and benevolence.¹

¹ Shelley, *Speculations on Morals*, Chapter I, Benevolence.

The influence of Hume is again very plainly discernible when benevolence and justice are represented as the two constituent parts of virtue, "the only true object of all voluntary actions of a human being." The conception of justice in the ethical speculations of the poet is, however, very far removed from Hume's standpoint. Hume was not a revolutionary in his social ideals. He was more or less conservative in instinct and his idea of justice lays emphasis on that aspect of the virtue which makes for the stability of society. Shelley, on the contrary, lived in an entirely different world of ideas. The French Revolution had come and gone and it had released, in its wake, a system of revolutionary thought which challenged the most cherished traditions of men. Each and every ideal of life, each and every institution of society were carefully analysed by the emancipated intellect of man. They had to stand the test, and, if found wanting, were mercilessly denounced. Moreover, this humanitarian tendency, strengthened as it was by the speculations of Rousseau, vividly brought out in all their lurid colours the many inequities still prevalent in society. The necessity of a new orientation of ideals was imperatively felt by all. The enthusiasm of youth could not rest satisfied with what it considered to be obsolete and effete principles. It strove hard to formulate a new gospel of life and such a gospel was discovered in the revolutionary thinkers of France, specially in Godwin, their able commentator. Hume had pointed out how necessary it was for equitable laws to secure to men and their descendants the products of their own art and industry. He had also pleaded for freedom of exchange and sale to facilitate trade.¹ The development of property and the consequent unequal distribution of wealth had left a very painful impression on the minds of revolutionary thinkers from Rousseau down to Godwin. Shelley the admiring pupil of Godwin could not but regard excessive wealth

¹ Hume, *Enquiry Concerning the Principle of Morals*, III, ii. (Ibid., p. 195.)

as a libel on its possessor.¹ Property, he was convinced, is founded on falsehood against which it is the duty of every reformer to wage incessant war.² When inherited, wealth exercises a very demoralising influence on its possessor. It is, therefore, only natural that the particular rules of justice which Hume enunciated, based as they were on property and its stability, should find no place in Shelley's scheme and that the conception of justice itself should undergo a radical change.

Nor could the poet pay as much attention to practical considerations as the philosopher had done. He was more attracted by the glamour of ideals than by the common light of everyday existence. Accepting with enthusiasm the intellectual standpoint of Godwin, Shelley could never tolerate the stubborn inertia of concrete reality. We consequently find him recommending those very principles which Hume had rejected as impracticable, if not pernicious.³ The object of moral action is to secure happiness to the greatest number of individuals. The quantity of happiness produced is not, however, the sole criterion of morality; attention must also be paid to its equitable distribution among men. "It is not enough, if such a coincidence can be conceived as possible, that one person or class of persons should enjoy the highest happiness, whilst another is suffering a disproportionate degree of misery." The poet was fully conscious of the inequitable distribution of wealth in society and in his letters to Elizabeth Hitchener he referred, time and again, to the sad contrast between riches and poverty in Ireland. In his *Address to the Irish People* also he lamented that the rich should dominate over the poor and exact from them a servile obedience which degrades the soul. His reforming zeal could never rest satisfied till it had expressed itself unequivocally against the existing

¹ Cf. Shelley, Declaration of Rights, Sec. 17.

² Shelley, A Philosophical View of Reform.

³ *Ibid*, III, ii (*Ibid*, pp. 193-4). Cf. "However specious these ideas of perfect equality may seem they are really, at bottom, *impracticable*, and were they not so, would be extremely *pernicious* to human society."

order of things and in his *Speculations on Morals* he emphatically pointed out that "the happiness produced by the common efforts and preserved by the common care should be distributed according to the just claims to each individual."¹ Justice, therefore, is not, as it is with Hume, a principle which secures the stability of society ; on the contrary, it "regulates benevolence in its application to the concrete realities of life." It is indeed an "elementary law of human nature" but instead of retaining the *status quo* in the social system, it seeks to remodel society according to ideals of equity. "Through this principle," Shelley pointed out in his *Speculations on Morals*,² "men are impelled to distribute any means of pleasure which benevolence may suggest the communication to others, in equal proportions among an equal number of members ;" and it is in this sense that he defined justice as "the apprehension of the manner in which good ought to be done."³ Shelley's moral ideas were thus plainly formed by the joint influence of Hume and Godwin till, in his mature age, he developed a more idealistic theory which was different, in a considerable degree, from his earlier opinions.⁴

In his romances *Zastrozzi* and *St. Irvyne* Shelley, nurtured on orthodox traditions, evinced a firm faith in the Immortality of the Soul. The picture that he painted, of the torments which sinful men endure in their after-life, is in perfect keeping with the atmosphere of ideas of his early age.⁵ There is, according to him, a definite relationship between morality and a future state. "Where is virtue? Where is perfection?" asked the youthful poet, and he himself answered "where I cannot reach," presumably in this earthly existence. Is then there another existence ?

¹ Shelley, *Speculations on Morals*, I, Plan of a Treatise on Morals.

² Chapter I, Justice.

³ Shelley, *Speculations on Morals*, I, Plan of a Treatise on Morals.

⁴ Godwin and Shelley, *Journal of the Department of Letters*, Calcutta University, Vol. XX.

⁵ Cf. Shelley, *St. Irvyne*, Ch. IX.

If not, perfection is unattainable. If, on the other hand, there be such an existence then alone can man have any hope of living there "rendering and rendered happy."¹ Yet the very form of the argument indicated that there was, even at that early age, growing in the mind of Shelley a tendency towards doubt and scepticism regarding orthodox ideas on that question. As he came into more intimate contact with the speculations of the philosophers of his age this scepticism grew stronger. The future state is no longer a matter of certainty but "a matter at least of doubt."² He had now to admit that "natural reason can only give facts of experience that we now are, that there was a time when we were not." It cannot go any further. For sometime, however, the poet clung to his early opinions and sought to strengthen his belief by arguments drawn from *a priori* reasonings. Anxious to find a stable basis for his belief he took recourse to arguments which in his later days he had to repudiate. "In nature, everything might be liable to continual change yet nothing can be absolutely annihilated. The soul can, consequently, never perish ; on the contrary, in a future state, it will begin its life anew, oblivious of its experiences in a previous existence." Such arguments, however, could not entirely satisfy him. He could only "flatter himself that he had kept clear of suppositions." Yet in his heart of hearts, the poet was conscious that he was merely drawing inferences from hypotheses and suppositions. The words "Then do I suppose," "I think I have a right to draw this inference" clearly show a vacillating state of mind. Tradition, however, dies very hard ; ideas impressed upon the youthful mind become so strongly established there that it refuses to give them up unless and until it is compelled to do so. It will first try to support them from all possible standpoints and will, very reluctantly, relinquish them only when it finds that they are

¹ Shelley, Letter to Hogg (June 16, 1811).

² Shelley, Letter to Elizabeth Hitchener (June 20, 1811).

absolutely unjustifiable. Such was the case with Shelley so far as this problem of the immortality of the soul is concerned. In a letter written to Elizabeth Hitchener¹ the poet looked at the question from a different angle of vision. There are no innate ideas and there is no consciousness during deep sleep. What, then, becomes of our soul in these "moments of intellectual suspension?" Is it annihilated? If so, how is it again resuscitated? We know that the rule, "from nothing, nothing can come; to nothing, can nothing return" is universally applicable. Admitting its infallibility we can never conceive of the soul as being reduced to nothingness, in our dreamless sleep and then again raising itself from nothingness in our waking state. If this be true in one case of intellectual suspension, it must also be true in other cases as well. "You have witnessed," observed Shelley, "one suspension of intellect in dreamless sleep, you witness another in death. From the first, you will know that you cannot infer any diminution of intellectual force. How contrary then to all analogy to infer annihilation from death, which, you cannot prove, suspends for a moment the force of mind." Though in these arguments the poet showed remarkable powers of acute reasoning yet he was conscious that this was reasoning from analogy; and analogy, as all logicians point out, is not demonstration.

With the weakening of his belief in a future state, Shelley sought to prop it up with other arguments as well; but the very way in which he developed his theory shows much of hesitation and scepticism. He was no longer doubtful that what he was advancing in support of his belief were not demonstrative truths but mere hypotheses. "Microscopic vision," he asserted, "reveals to us the existence of millions of animated beings" the activities of which cannot but attract the observing mind of the scientific investigator of truth. Might not this same microscopic vision "if extended, find that nature itself was but a mass of organised animation. Perhaps the animative intellect of all this is in a

¹ Shelley, Letter to Elizabeth Hitchener (June 25, 1811).

constant rotation of change. Perhaps a future state is no other than a different mode of terrestrial existence to which we have fitted ourselves in this mode."¹ The sentences that immediately follow this trend of reasoning throw a flood of light on the state of Shelley's mind at that particular period of his life. When the poet anxiously questioned, "Is there any probability of this supposition being true?" when he fondly clung to it as the basis for his belief that congenial souls must meet, because having fitted themselves for nearly the same mode of being they cannot fail to be near each other;² we cannot but have a shrewd suspicion that his arguments in favour of the immortality of the soul were less an expression of his sincere faith in the theory itself than that of a hankering for an eternity of association with "the sister of his soul," "the cheering beam which gilded his wintry day of life."³

Meantime in the works of Hume, Shelley had been confronted with arguments which clearly broke down the main props of his faith. Hume had pointed out that sleep being "a very small effect on the body" is attended with temporary extinction of consciousness. Recovery from this temporary suspension should not, however, be regarded as an argument in favour of the continued existence of the human soul even after the dissolution of the human body. On the contrary, the gradual decay of the mind in old age corresponding to a similar decay of man's physical powers clearly points to its total dissolution in death.⁴ Similarly, the philosopher admitted for the sake of argument that a spiritual substance might be "spread throughout the Universe." It might be "the only inherent subject of thought;" but it did not necessarily follow that the individual expression of this eternal substance must be equally eternal. "We have reason to conclude from analogy," Hume asserted, "that nature uses it after the manner she does

^{1,3} Shelley, Letter to Elizabeth Hitchener (Nov. 24, 1811).

⁴ Hume, Of the Immortality of the Soul (published in his "Two Essays" MDCCLXVII), *vide* Hume's Essays, Moral, Political and Literary. [Ed. by T. H. Green, Vol. I, pp. 69-71, also, Vol. II, pp. 399-406.]

the other substance, matter. She employs it as a kind of paste or clay; modifies it into a variety of forms and existences; dissolves, after a time, each modification and from its substance erects a new form. As the same material substance may successively compose the bodies of all animals, the same spiritual substance may compose their minds; their consciousness or that system of thought, which they formed during life may be continually dissolved by death."¹ The immortality of the substance can never prove the immortality of its particular manifestations.

Such speculations could not but profoundly influence the mind of the youthful poet. His belief in a future state which had been already weakened by the scientific movement of thought prevalent in his age received a rude shock from his study of Hume. He found it very difficult to retain his faith in traditional beliefs regarding the immortality of the soul. Yet his idealistic temperament could not rest satisfied with this attitude of scepticism. His letters belonging to this period of his life show a conflict between his feelings on the one hand and his intellect on the other. His heart would fain believe in the immortality of the human soul but his intellect refused assent. "Every day," wrote Shelley to Elizabeth Hitchener,² "makes me *feel* more keenly that our being is eternal. Every day brings the conviction how futile, how inadequate are all reasonings to demonstrate it." It was very difficult for him to regard our "souls which measure in their circumscribed domain the distance of orbs" as mere "bubbles which arise from the filth of a stagnant pool, merely to be again re-absorbed into the mass of its corruption." He did not *feel* them to be so. He would welcome any proof which might satisfy his intellect and, in his extremity, used the hackneyed argument that such "eternity of man has ever been believed."

The fragment *On a Future State* written by Shelley about this time, shows interesting points of resemblance with Hume's essay, *Of the Immortality of the Soul*. The scientific

¹ Hume, *Of the Immortality of the Soul*.

² Shelley, *Letter to Elizabeth Hitchener* (Dec. 11, 1811).

investigations so characteristic of that age had clearly shown the intimate relationship between the mind and the body and Hume could not ignore their conclusions. He was very careful to point out that there is such a close association between these two aspects of the human personality that the slightest change in the one corresponds to a similar change in the other. "Sleep, a very small effect on the body, is attended with a temporary extinction (of consciousness), at best, a great confusion in the soul." Again: "The weakness of the body and that of the mind in infancy are exactly proportionate; their vigour in manhood, their sympathetic disorder in sickness, their common gradual decay in old age." And he seemed to be proceeding only one step further when he suggested their common dissolution in death. "This idea is further strengthened by the observation that the last symptoms which the mind discovers are disorder, weakness, insensibility, and stupidity." Such symptoms, in his opinion, point, without the least doubt, to total annihilation.

The line of argument which the youthful poet followed in his discussions about the possibility, or otherwise, of the existence of the human soul after death, seems to paraphrase the ideas and often echo the very phrases of Hume. "The natural philosopher," according to Shelley, "observes the mental powers increase and fade with those of the body and ever accommodate themselves to the most transitory changes of our physical nature. *Sleep* suspends many of the faculties of the vital and intellectual principle; drunkenness and disease will either temporarily or permanently derange them. Madness or idiocy may utterly extinguish the most excellent and delicate of those powers." Like Hume again, Shelley laid special stress on the gradual weakening of mental powers with the decay of the body and he triumphantly referred to this fact as a convincing evidence that as the organs of the body are subjected to the laws of inanimate matter "sensation, and preception, and apprehension, are at an end with death."¹

¹ Shelley, *On a Future State*.

In some respects the poet seemed to go further than the philosopher. Hume pointed out that it is not possible to determine on *a-priori* grounds alone, whether mind and body are causally connected. He simply suggested that experience alone can show "whether matter by its structure or arrangement, may not be the cause of thought." What Hume regarded as a mere possibility became, with Shelley, a probable theory and the manner in which he expressed himself on this question plainly showed which way his mind was inclined at that particular period of his life. Shelley pointed out that two entirely different theories were probable regarding the origin of thought. "It is probable, that what we call thought is not an actual being but no more than the relation between certain parts of this infinitely varied mass, of which the universe is composed and which ceases to exist as soon as those parts change their position with regard to each other," or thought might, on the contrary, be regarded as some peculiar substance which "permeates and is the cause of the animation of living beings." The drift of the entire passage, however, indicates that the poet was more ready to accept the first than the second. He referred to the second as a supposition, pure and simple, which he introduced merely for the sake of argument. As a matter of fact in the fragment itself, more emphasis is laid on the refutation of any theory regarding the immortality of the soul which might be based upon this hypothesis than on the elucidation of its implications or a defence of its reasonableness.

The contention that thought (or the soul)—for, according to Shelley, "sensation, perception and apprehension" are mere functions of the soul—is something different from matter could not impress Shelley. He closely followed Hume in order to prove that even then, we cannot postulate the existence of a future state. The philosopher Hume had observed that when everything else in this world is in continual flux and change, it is "contrary to analogy, therefore, to imagine that one single form, seeming the frailest of any, and subject to the

greatest disorders, is immortal and indissoluble." He had, also, pointed out that this spiritual substance, though it might exist independently of matter, is liable to the same laws as other substances. "We have reason to conclude from analogy that nature used it after the manner she does the other substance matter." Shelley merely developed the same idea in his arguments on a future state. There might be some difference between mind and matter, yet this difference does not justify us in holding that mind, and consequently the soul, is beyond the province of the laws of nature. "Why should that substance," asked the poet, "be assumed to be something essentially distinct from all others and exempt from subjection to those laws from which no other substance is exempt? It differs indeed from all other substances as electricity, and light, and magnetism, and the constituent parts of air and earth severally differ from all others. Each of these is subject to change and decay and to conversion into other forms. Yet the difference between light and earth is scarcely greater than that which exists between life, or thought, and fire. The difference between the two former was never alleged as an argument for the eternal permanence of either. Why should the difference between the two latter substances be an argument for the prolongation of the existence of one and not the other, when the existence of both has arrived at their apparent termination?"¹ Both the philosopher and the poet recognised the principle of the uniformity of nature and extended the sphere of the application of natural laws to the human soul itself.

Both of them were conscious of the close association between the immortality and the pre-existence of the soul. Hume, however, did not lay any very special emphasis on the argument from pre-existence. He simply referred to the fact that "what is incorruptible must also be ingenerable." "The soul, therefore, if immortal, existed before our birth." He at once proceeded to develop other aspects of the question with the bare assertion, "and if the former existence no ways concerned us neither will the latter." With Shelley this argument was

¹ Shelley, *On a Future State*.

far more important. He was so far attracted by it that a large section of his fragment *On a Future State* is devoted to an elucidation of its inner significance. "If we have not existed before our birth," he concluded, "if at the period when the parts of nature on which thought and life depend, seem to be woven together, they are woven together; if there are no reasons to suppose that we have existed before that period at which our existence apparently commences, then there are no grounds for supposition that we shall continue to exist after our existence has apparently ceased."¹ This is certainly a far more emphatic acceptance of the doctrine than the casual reference of Hume.

Like Hume again Shelley protested against the tendency so prevalent among theologians, of dealing with objects which lie beyond experience. The scientific temper of the age refused to dabble with the mysterious and the supernatural. By experiment and analysis it sought to extend the limits of knowledge and demonstrative truth. In a similar way the thinkers and philosophers of the age based all their theories on the solid foundation of experience. They could never accept hasty conclusions or hypotheses unsupported by facts. It is only natural that Hume should ask, "By what arguments or analogies can we prove any state of existence which no one ever saw and which no way resembles any that ever was seen? Who will repose such trust in any pretended philosophy, as to admit, upon its testimony the reality of so marvellous a scene;" and he ironically observed "some new species of logic is requisite for that purpose, and some new faculties of the mind that may enable us to comprehend that logic."² Equally conscious was the poet of the absurdity of such a procedure. "It is very easy, indeed," Shelley observed, "to form any proposition, concerning which we are ignorant, just not so absurd, as not to be contradictory in itself and defy refutation."³ The human intellect cannot find in it any formal fallacy and as the subject-matter of the proposition itself lies beyond the range of experience it is not possible for any one to discover whether it is based on real

¹ Shelley, *On a Future State*.

² Hume, *Of the Immortality of the Soul*.

³ Shelley, *On a Future State*.

facts or not. "The possibility of whatever enters into the wildest imagination to conceive is thus triumphantly vindicated." The philosopher who wants to be guided by reason and experience alone should very carefully guard himself against such a contingency. He should ruthlessly reject any assertion which transcends or goes against nature, or exceeds the limits of our experience. It is by reason of these very characteristics that fallacy and irrelevancy to our consideration are, for all practical purposes, demonstrated. From this standpoint also, the belief in a future state cannot be regarded as rational, for "it is," the poet very pertinently pointed out, "not supported by a single argument" and lies beyond the experience of the human understanding.

What, then, is the basis of this faith? Hume and Shelley were equally conscious of the fact that there lies dormant in the human personality a pronounced aversion to death which, according to both the poet and the philosopher, makes man believe in a future state. "This desire to be for ever as we are, the reluctance to a violent and inexperienced change, which is common to all the animated or inanimate combinations of the universe"—this alone, in the opinion of Shelley, can be regarded as the source of all theories concerning the immortality of the soul. Hume however proceeded further. The very horrors of death are, according to him, a proof positive of the mortality of the soul. Nature does nothing unnecessarily. She would never have instilled into our mind an aversion to death, if death itself were an impossibility. On the contrary, this fear has a very great significance with us. For, in this case, nature has, indeed, given us a horror against an unavoidable event in order that thereby we may be incited to action and our endeavours may, consequently, "remove it some distance." This is, indeed, a main point of difference between the poet and the philosopher, a difference which afterwards led the poet develop his ideas in an altogether different direction.

Shelley continued his analysis into the nature of the human personality. The arguments of Hume which sought to establish

an associationist theory of the human mind could not satisfy him. The human personality was, no longer, a mere stream of associated ideas. On the contrary, after an investigation into the "intricate and winding chambers" of the mind, Shelley discovered that the principles of the so-called associationist theory had reference only to the sensations received from outside and the ideas developed therefrom. They could analyse and systematise experience, they could only find out its characteristics. They could not, however, proceed any further. The causes of sensations or the nature of the self or the outside world were a sealed book to philosophers of this school. "The accurate philosophy of the modern academy," according to his newly formed ideas about the human soul, "had amply shown the prodigious depth and extent of our ignorance respecting the causes and nature of sensation." It had also proved that "popular arguments.....derived from what is called the atomic system" are applicable only to the relation that one object bears to another as apprehended by the mind and not to existence itself.¹ A deeper analysis also proved that "man is a being of high aspirations, looking both before and after, disclaiming alliance with transience and decay; incapable of imagining to himself annihilation." "There is a spirit within him at enmity with nothingness and dissolution."² In fact, the poet no longer depended on an intellectual analysis of sensations and ideas alone; he went further and took cognisance of other aspects of the human personality as well. It is also significant that he based his renewed faith in the immortality of the human soul on "this spirit at enmity with transience and decay" and extended the realm of human experience to include the intuitive elements of our knowledge. Now that materialistic arguments appeared to be inadequate, the almost universal

¹ Shelley, *On the Punishment of Death*. The similarity of many of its arguments to those of his fragment *On Life*, the extensive use of Godwinian principles and similar other characteristics lead to the inevitable conclusion that the treatise must have been written later than *On a Future State*.

² Shelley, *On Life*.

opinion of mankind as to the immortality of the soul came to have, at this transition period of his life, a peculiar significance of its own. This newly developed point of view has been very concisely summed up in a passage of his treatise, *On the Punishment of Death*, where the poet accepted the general consensus of opinion in favour of the existence of a future state.¹

In *On a Future State* Shelley, basing his opinions on the arguments of Hume, had asserted that "the existence of a God and a future state of rewards and punishments, are totally foreign to the subject." He did not, indeed, refer, at any length, to the arguments of Hume but accepted his conclusions without any reservation whatsoever. In fact, he did not analyse the theory at all; on the contrary, with a supreme gesture of indifference, the poet pointed out the irrelevancy of such considerations. "Should it be proved.....that the mysterious principle which regulates the proceedings of the universe, is neither intelligent nor sensitive, yet it is not an inconsistency to suppose, at the same time, that the animating power survives the body which it has animated, by laws as independent of any supernatural agent as those through which it first became united with it." Nor was the poet sure that the bestowal of rewards or the infliction of punishments can ever be regarded as the *raison d'être* of a future state. In his pamphlet, *On the Punishment of Death*, however, Shelley expressed a different view altogether. He was already inclined to consider seriously the suggestion of the popular system of religion that "the mind after death, will be pleasurably or painfully affected according to its determinations during life." In our earthly life we find that all our external activities have their inevitable consequences. Analogy is the only method of reasoning which we have to follow in dealing with questions which transcend our experience, and analogy tells us that similar consequences

¹ For further developments of this idea of Immortality *vide* Platonism in Shelley, *Journal of the Department of Letters, Calcutta University*, Vol. XV.

should also result to an individual in his future life, from "the discipline and order of his internal thoughts." Even after making due allowance for accidents, diseases, temperaments and numerous other independent agencies which influence our conduct, there are still enough indications to show, in the words of the poet himself, that, "there are some operations in the order of the whole of nature, tending.....to some definite mighty end to which the agencies of our peculiar nature are subordinate" and there is no reason to suppose that "in a future state they should become suddenly exempt from that subordination." This argument by which he sought to convince his readers show the unmistakable influence of the necessitarian doctrines of Godwin.

The poet thus regained his faith in a future state and even in a future state of rewards and punishments. Obviously such a view must have for its corollary the doctrine of the immortality of the individual human soul. In a later age Shelley spoke of the soul as passing into the Over-soul¹ and losing its own individuality in a vivid experience of intuitive vision ; but in those early days he regarded such theories to be, at best, indifferent. The soul still retains a personality of her own; and although she may have intuitive visions yet she never loses herself in God. In Shelley's *Queen Mab*, the earliest poem in which he sought to express his opinions on the social, political and metaphysical problems of the day, the soul of Ianthe is represented as distinctly differentiated from her body. There is, no longer, any suspicion that the soul may possibly be a mere function of matter. On the contrary, it is regarded as capable of passing beyond the world of physical existence into the realm of spiritual ideals and spiritual forces, where the present, the past and the future of humanity stood revealed before its penetrating gaze. It is only natural that such a conception of the human soul should strengthen his belief in after-life indications of which are discernible even in his treatise *On the Punishment of Death*. The souls of some of the chief protagonists

¹ Shelley, *Adonais*.

of the *Revolt of Islam* are, in accordance with this changed standpoint of the poet himself, represented as living after death and passing into the world of ideas. This is indeed, an outlook on life entirely different from Hume's. In fact the idealistic temperament of Shelley could not, for any great length of time, remain satisfied with the conclusions of sceptical philosophy.¹

The Deistic movement of thought in England sought to discover a rational basis of religion. Miracles which had been regarded in orthodox theology as one of the foundations of faith were subjected to the scrutiny of critical Deism. Unable to bear the searching analysis of the human intellect they almost always crumbled into nothingness. The controversy which ranged round the miracles of Christ undermined, to a very great extent, man's belief in supernatural manifestations of Divinity. Hume, in his famous *Essay on Miracles*, seemed, in those days, to have said the last word on the subject and his arguments appealed so strongly to the rationalist temper of the age as to have been accepted almost as axioms by youthful enthusiasts like Shelley. The scientific temper of the age and the intellectual outlook of many a sceptical thinker wielded a very great influence on the minds of those young *alumni* of Oxford who daily met at Shelley's place to discuss metaphysical and moral problems. On this particular point, however, the poet did not go over the ground already traversed by the philosopher. Hume's standpoint was accepted by him as self-evident, so much so, that he never thought it necessary to recapitulate them. He simply referred to them and summed up the entire position in a series of telling questions. "Whether it is more probable," asked Shelley, "that the laws of nature, hitherto so immutably harmonious should have undergone violation or that a man should have told a lie?"² This question which he, with great self-confidence, placed before his antagonists, must have been suggested to him by

¹ For a development of the Immortality of the Soul in Shelley's poetical works, *vide* Platonism and Shelley, *Journal of the Department of Letters, Calcutta University*, Vol. XV.

² Shelley, *Notes on Queen Mab*, VII, ll. 135-36.

Hume's argument that as a miracle is a violation of natural laws there are irrefutable proofs against its existence. "A miracle," to quote Hume's own words, "is a violation of the laws of nature, and as a firm and unalterable experience has established these laws, the proof against a miracle from the very nature of the fact, is as entire as any argument from experience can possibly be imagined."¹ The second question—"Whether it is more probable that we are ignorant of the natural cause of an event or that we know the supernatural alone?"—was in perfect keeping with the scientific temper of the age afterwards fully utilised by the poet in his exposition of the doctrine of Necessity. The next and the most significant question as to whether "in old time when the powers of nature were less known than at present, a certain set of men, were themselves deceived or had some hidden motive for deceiving others or whether God begat a son and performed other miracles of an extraordinary type" is, to all intents and purposes, an echo of the doctrines of Hume in his *Enquiry Concerning the Human Understanding*.² "If the spirit of religion," observed Hume in that essay, "join itself to the love of wonder, there is an end of common sense and human testimony, in these circumstances, loses all pretensions to authority. A religionist may be an enthusiast and *imagine he sees what has no reality*. He may know his narrative to be false, and yet persevere in it, with the best intentions in the world, for the sake of promoting so holy a cause; or even where this delusion has no place, vanity excited by so strong a temptation, operates on him more powerfully than on the rest of mankind in any other circumstances, and self-interest with equal force." In an altogether similar vein the poet argued that "The records of all nations afford innumerable instances of men deceiving others either from *vanity* or *interest* or themselves being deceived by the limitedness of their views or their ignorance of natural causes."³ The arguments that the poet put forward in his

¹ Hume, *Essay Concerning the Human Understanding*, Sec. X, Part I.

Cf. Shelley, *Notes on Queen Mab*, VII, ll. 135-36.

² Sec. X, Part II.

³ Shelley, *Notes on Queen Mab*, VII, ll. 135-36.

Refutation of Deism against the existence of miracles are also reminiscent of Hume. "Evidence," he was careful to point out, "of a more imposing and irresistible nature is required in proportion to the remoteness of any event from the sphere of our experience. Every case of miracles is a contest of opposite improbabilities, whether it is more contrary to experience that a miracle should be true or that the story on which it is supported should be false." No testimony is sufficient to establish a miracle unless the testimony be of such a kind that its falsehood would be more miraculous than the fact which it endeavours to establish. Again: "But when the fact attested is such a one as has seldom fallen under our observation, here is a contest of two opposite experiences. The very principle of experience which gives us a certain degree of assurance in the testimony of witnesses, gives us also, in this case, another degree of assurance against the fact which they endeavour to establish."

It was only natural for him to conclude, even as Hume had done, that a miracle is no miracle in any case; for until we are acquainted with all natural causes, we have no reason to imagine others.

Theologians of the orthodox school lay special emphasis on the universality of a belief in the existence of God. There is, according to them, a tendency to devotion, a thirst for reliance on supernatural aid inherent in human nature. The existence of God or of Gods has never been disputed in any human community however barbarous or uncivilised it may be. Is such a faith absolutely baseless? Or is it not more probable that this universal belief must "be the result of revelation the memory of which has been preserved by tradition?" These are, indeed questions which the sceptic must answer before he can establish his own theory. When confronted with speculations of this type, Hume did not flinch from his task. He proceeded to deal with them from a historical point of view. The

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Natural History of
Religion.

age in which the philosopher flourished might be an age of science, yet historical criticism was still in its infancy. There were extant, at that particular period of the history of English thought, very scanty materials on which such investigations might be based. Nor were there any very rigorous methods of enquiry as are supplied, at present, by anthropological researches into the religious beliefs and traditions of savage races. "His speculations.....were suggested almost exclusively by the classical writers or his own observations of existing modes of thought amongst the ignorant and superstitious. The materials, however, though scanty enough for any minuteness of theory, were sufficient to suggest the main outlines of a scientific view."¹ It is not the contemplation of nature as a whole, but "the anxious concern for happiness, the dread of future misery, the terror of death, the thirst for revenge and the appetite for food and other necessities"² which impel man to believe in supernatural beings. In imagination Hume placed himself in the position of the savage and barbarous races and sought to portray how their religious traditions and beliefs were first formulated. Man is subjected to the varied experiences of life, to prosperity and adversity, to happiness and misery. He tries to find out the causes of the events which befall him but fails to discover them. He can only shadow forth mysterious powers and forces whose operations are unknown and inexplicable. "These *unknown causes*, then, become the constant object of his hope and fear: and while the passions are kept in perpetual alarm by an anxious expectation of the events, the imagination is equally employed in forming ideas of these powers, on which he has so entire a dependence."³ Man, however, cannot transcend his own personality. His ideas must be derived from his own experience; they must be coloured by his own sentiments. Naturally his Gods are invested with

¹ Leslie Stephen, *History of English Thought in the XVIII Century*, VI, 31.

² Hume, *Natural History of Religion*, Sec. III.

³ *Ibid*, Sec. III.

“those qualities with which he is familiarly acquainted and of which he is intimately conscious.” They possess all the sympathies and antipathies of their creator and are but an exalted “species of human creatures” “retaining all human passions and appetites” and sometimes, even human forms. Man thus creates his God in his own image and after his likeness.

The philosopher was moreover conscious of the myth-making propensities of the early man's nature. In Section V of his *Natural History of Religion* Hume pointed out that vulgar polytheism instead of proceeding rationally has a peculiar tendency of defying every “parity of nature” and of conceiving all its conspicuous productions, to be themselves so many real divinities. Their admiration for heroes again leads them, more often than not, to invest these Demi-gods with divine attributes and include them in their Pantheon. Thus created and developed by divergent tendencies the mythology of the different nations of the world in the early stages of their civilisation, gradually takes a definite shape and form. Nor is the transition from polytheism to theism based upon reason. “The vulgar,” Hume was careful to observe, “in nations, which have embraced the doctrine of theism, still build it upon irrational and superstitious principles.” From an examination of their processes of thought it may be very well inferred that, in the past, whenever a particular community proceeded to accept theistic principles, it must have been led to them not by any rational argument but by an unconscious and gradual promotion of some favoured deity worshipped by its members. “They may either suppose, that, in the distribution of territory among the gods, their nation was subjected to the jurisdiction of that particular deity; or reducing heavenly objects to the model of things below, they may represent one God as the prince or supreme magistrate of the rest, who, though of the same nature, rules them with an authority, like that which an earthly sovereign exercises over his subjects and vassals.” Fears and

distresses make the worshippers of this particular deity to invest him with greater powers ; epithets of adulation and praise are accumulated upon him and thus, out of a tribal god there ultimately emerges an Omnipotent Creator of the universe.¹

An early acquaintance with the speculations of Hume and the materialists of the French school, had dissipated from the mind of youthful Shelley all the shadowy conceptions of an orthodox God which he had imbibed from his environments in his childhood. During his residence at Oxford he was so far converted as to write his famous (or notorious) *Necessity of Atheism* which brought about such a revolutionary change on the future prospects of his life. But even when some years later, he sought to give in *Queen Mab* a connected account of the gradual development of the idea of God in human society, his descriptions differ materially from Hume's *Natural History of Religion*. Hume regarded the human passions, especially fear, as the mainspring of man's belief in Gods. "The first ideas of religion arose, not from a contemplation of the works of nature, but from a concern with regard to the events of life, and from the incessant hopes and fears which actuate the human mind"—not from "speculative curiosity" but from "the anxious concern of happiness, dread of future misery, the terror of death, the thirst for revenge and the appetite for food and other necessities."² The poetic appreciation of the beauty and grandeur which man finds in nature plays a very subordinate part in the creation and development of pagan mythology. In this interpretation of the religion of early man Hume showed himself to be a man of sturdy common sense. Throughout his life, the philosopher evinced no sympathy with flights of poetic imagination and refused to soar to the higher regions of idealistic thought. Shelley was, however, a man of an entirely different nature. From his early life he was gifted with an essentially poetic temperament. Always sensitive to whatever is beautiful or

¹ Hume, *Natural History of Religion*, Sec. V.

² *Ibid*, Sec. II.

magnificent in nature or in human life he could not appreciate the plain, matter-of-fact point of view which Hume sought to establish. His conception of the primitive man is quite different from Hume's. He does not cower before an unknown God, nor does he heap exaggerated terms of flattery on idols of his own creation. The primitive man of Shelley, influenced as the poet is by Rousseauistic ideas of the noble savage, is instinct with imagination. With a poet's eye he looks at the world and falls down in worship before its magnificent presence. The stars which shed their soft radiance on the cradle of his birth, the clouds, the mountains and the seas are all Gods before the wandering eyes of the savage. In the "untutored infancy" of human civilisation and human religion "The sun had homage and the moon worshipper." Shelley might call this attitude of awe and admiration mere "distempered playfulness," it might "taint" nature by giving an entirely untrue representation of the inner spirit of Necessity which pervades her. Yet this very "distempered playfulness" is a far nobler attitude than that of abject terror which characterised Hume's vulgar polytheist. With the progress of culture man, according to Shelley, invests every object of nature with a personality similar to his own self

".....every shape,
 Monstrous or vast, or beautifully wild,
 Which from sensation's relics fancy culls ;
 The spirits of the air, the shuddering ghost
 The genii of the elements, the powers,
 That give a shape to Nature's varied works" ¹

have for the imaginative vision of this religious faith of early times, a significance all their own. From Shelley's standpoint, this belief is corrupt as it does not proceed from the "enlightened intellect" of Godwinian philosophy but from "the blind heart" ²

¹ Shelley, *Queen Mab*, VI, ll. 80-85.

² *Ibid.*, VI, l. 87.

of man in the adolescent stage of his civilisation. It is, however, far more poetic than the picture drawn by the Scottish mentor of the poet. There is, in this description, no hint "of any anxious concern for happiness, nor of any dread of future misery" on which Hume sought to base the earliest religious ideals of man. Shelley's barbarian is not a cringing slave. He does not invest "new strains of adulation" to "insinuate himself into the favour of his Gods."

The romantic Barbarian of Shelley's imagination develops, at a very early stage, powers of reasoning and speculative curiosity which Hume does not recognise even in the common man belonging to comparatively civilised times. The stupendous scene in the midst of which he lives, its "everlasting and unchanging" laws all attract his attention. He seeks to know them and he finds that the complexities of nature and life "mock the knowledge of his pride" and "reproach his ignorance."¹ Failing in its attempt to unravel the mysteries of the universe, religion now seeks to ascribe all the inexplicable phenomena which confront it to the one First Cause, itself least understood. "Awhile thou stoodst," says the fairy in *Queen Mab*,

".....Awhile thou stoodst
Baffled and gloomy; then thou didst sum up
The elements of all thou didst know;
The changing seasons, winter's leafless reign,
The budding of the Heaven-breathing trees,
The eternal orbs that beautify the night,
The sun-rise and the setting of the moon,
Earthquakes and wars, and poisons and disease,
And all their causes, to an abstract point
Converging, thou didst bend and call it God."²

The savage of Hume, trembling in fear and distress and howling propitiatory songs of praise before the altar of his Gods,

¹ Cf. Shelley's *Queen Mab*, VI, ll. 90-92.

² *Ibid*, VI, ll. 93-102.

is thus replaced by an ardent seeker of truth, who, baffled by the mysteries of the universe, seeks to satisfy his speculative curiosity by imagining a creator and making him the all-pervading spirit which underlies the world.

In spite, however, of this difference in outlook, the poet had to acknowledge the anthropomorphic tendency of the human mind. The Deity that religion creates is "the prototype of human misrule."¹ He admitted that "the word God which originally meant the unknown cause of the known events which men perceived in the universe" became a man "endowed with human qualities and governing the universe as an earthly monarch governs his kingdom. Their addresses to this imaginary Being indeed, are much in the same style as those of subjects to a king. They acknowledge his benevolence, deprecate his anger, supplicate his favour."² The entire passage is full of reminiscences from Hume and contains unmistakable echoes of his ideas and even of his phraseology. But considering all aspects of the question the influence of Hume's *Natural History of Religion* on Shelley's *Queen Mab* is very slight. The poet formulated his independent opinions about the development of religious ideals in the mind of man, and interpreted them in the light of his own imagination.

In his pamphlet on the *Refutation of Deism*, however, Shelley appeared to have accepted the main thesis of Hume. Like the "vulgar polytheist" of the philosopher "the savage" of Shelley is now very prone to attribute his own "passions and propensities" to all objects, animate or inanimate, which help or hinder him in his activities. He calls them gods and demons and offers them prayers and sacrifices by which he seeks to "confirm the benevolence of the one or mitigate the malignity of the other." "When the winds, the waves and the atmosphere act in such a manner as to thwart or forward his

¹ Shelley, *Queen Mab*, VI, l. 105.

² Shelley, *Notes on Queen Mab*, VI, l. 198.

designs he attributes to them the same propensities of whose existence within himself he is conscious when he is instigated by benefits to kindness or by injustice to revenge." The entire outlook was now changed, the romantic glamour which had surrounded the savage in *Queen Mab* vanished and the primitive man now became a calculating utilitarian like Hume himself. Supplication and submission, entreaties, offerings and flattery, replaced the simple worship of wonder and awe which Shelley so graphically described in his earlier poem. In fact, the trend of thought, the very atmosphere of ideas in such passages, plainly indicate that the hand was the hand of Shelley but the voice was the voice of Hume.

Hume's conception of the anthropomorphic tendency in human thought had, by this time, been further supported and developed by French philosophers. Shelley no longer based his argument entirely on Hume; on the contrary, he never discussed this aspect of the question without referring to such treatises in French as *Le Bon Sens* or *La Systeme de la Nature*. These ideas were now very emphatically expressed and the way in which they were formulated plainly showed the strength of Shelley's conviction. "There is," asserted the poet, "no attribute of God which is not either borrowed from the passions and powers of the human mind or which is not a negation." Again: "Barbarians and uncivilised nations have uniformly ordered, under various names, a God of which themselves were the model: revengeful, bloodthirsty, grovelling and capricious. The idol of a savage is a demon that delights in carnage." No less convinced was Shelley of the fact that it is only a cultivated mind which can transcend its own personality and regard things from an objective view-point. It is only when such an intellect has been developed that man can form, as the basis of his arguments, a juster and truer conception of God. In his *Refutation of Deism*, it was very appropriately pointed out that "it requires indeed a mind considerably tinctured with science and enlarged by cultivation to contemplate itself not as the centre and model of

the universe but as one of the infinitely various multitude of beings of which it is actually composed."

Hume and the Necessity of Atheism.

It has been noted that, during the earliest stage of the development of ideas in the mind of Shelley the philosophical principles enunciated by Locke, left a profound impression on him and considerably influenced the evolution of his theories. His ideas especially those which were concerned with the nature and origin of knowledge were mainly derived from Lockian philosophy. Within a very short time, however, he leaned more and more towards sensationalism pure and simple, ignoring altogether the idealistic elements of Locke and basing his epistemology entirely upon experience derived from the senses alone. Even in his *Necessity of Atheism*, Shelley did not fail to point out that "the senses are the sources of all knowledge to the mind and, consequently, their evidence claims the strongest assent." This statement is significant especially in view of Locke's differentiation between ideas derived from the senses and those from reflection. Nor did the philosopher regard the evidence of the senses to be the most certain basis of Knowledge. Shelley had, at that early stage of his life, progressed away from Locke and definitely towards Hume. It was now only natural that the theological speculations of the poet should be increasingly coloured by the philosophy of Hume; and several of the arguments he put forward in support of his atheistical conclusions plainly show the influence of the critical, if not agnostic, attitude of the Scottish philosopher. One of the fundamental principles of Hume's philosophy was his interpretation of causation. Unlike his predecessor, Hume could not find in the phenomenal world any evidence which could support the conception of power or even of substance. His powerful intellect stripped the idea of causation bare of every other element save and except uniform sequence and a habitual anticipation of the recurrence of similar effects from similar causes. In his theological argument the philosopher used this theory to confront the anthropomorphism

of Deistic philosophy;¹ and, in the character of Philo the careless sceptic of his *Dialogues Concerning Natural Religion* Hume did not scruple to use the Epicurean hypothesis of the eternity of material particles, for involving in a cloud of doubts the Deistic theory of creation. He played with the idea that a finite number of particles "susceptible of infinite transpositions" might bring about, in the course of eternal duration, an economy or order which, by its very nature, might, "when once established, support itself, for many ages, if not for eternity." Thus "poized" and thus arranged its matter might be so "adjusted as to continue in perpetual motion" and at the same time "preserve a constancy" of its forms. The result will, in consequence, "have the appearance of art and contrivance."²

Shelley in his youthful enthusiasm, eagerly accepted these "sceptical" arguments and his *Necessity of Atheism* shows unmistakable traces of their influence. Like Hume he asserted that "the only idea which we can form of causation is derivable from the conjunction of objects and the consequent inference of one from the other," but he introduced this conception without any apparent relevancy to the trend of reasoning used in his treatise. Shelley proceeded in his own way, accepting, modifying and even rejecting Hume according to the requirements of his standpoint. Thus what the philosopher adduced as a mere suggestion with regard to the material particles of which the universe is constituted was, in the *Necessity of Atheism* elevated to the dignity of a valid argument. The poet solemnly affirmed: "It is urged that man knows that whatever is must either have had a beginning or have existed from eternity; he also knows that whatever is not eternal must have had a cause. When this reasoning is applied to the Universe, it is necessary to prove that it was created, until that is clearly demonstrated, we may reasonably suppose that it has endured from all eternity."

¹ Works of David Hume. Ed. by T. H. Green and T. H. Grose, Vol. II, p. 395. *Dialogues Concerning Natural Religion*, Part II.

² Hume's Works, Vol. II, p. 427. *Dialogues Concerning Natural Religion*, Part VIII.

Shelley was now fully conscious of the utter futility of proceeding beyond the material world. He was fully convinced that "it is easier to suppose that the universe has existed from eternity than to conceive a Being beyond its limits capable of creating it." "If the mind sinks beneath the one," the poet asked, "is it an alleviation to increase the intolerability of the burthen?" Nor did he fail to remind his readers that "in a case where two propositions are diametrically opposites the mind believes that which is most (*sic*) comprehensible."¹

The arguments that Shelley used for the purpose of combating Locke's proof of the existence of God are also, in the main, derived from Hume. Like Hume, the poet pointed out that causation is alone derivable from "constant conjunction" and "consequent inference." Like Hume again, he proceeded not deductively but scientifically. Scientific methods of analysis, observation and experiment revealed to him the truth that "we can infer from effects causes exactly adequate to those effects." By such analysis he came to admit a certain "generative power"² but this power the poet regarded as incomprehensible. He was however careful enough to assert that to refer the fact of creation to an eternal, omniscient, omnipotent Being does not lift the veil of mystery from the face of things; on the contrary, it only adds to the obscurity already existing.³

The poet's analysis of the conception of God in the *Necessity of Atheism* shows interesting points of resemblance with the sceptical outlook of Hume. In his *Treatise on Human Nature* or other metaphysical works, Hume never forgot to assert that, although we can know the effects of the powers in

¹ Shelley, Notes on Queen Mab, VII, 13. (The Necessity of Atheism as reproduced in the Note.)

² Similarly in the *Dialogues Concerning Natural Religion* Philo had pointed out that the origin of the universe might be "ascribed to generation or vegetation rather than to reason or design," cf. Works of David Hume, Vol. II, p. 420. *Dialogues Concerning Natural Religion*, Part VII.

³ Shelley, Necessity of Atheism as reproduced in Notes to Queen Mab, VII, 13.

nature, we do not and cannot form any idea whatsoever of their essential characteristics. Shelley in a similar way very emphatically observed, "We see a variety of bodies possessing a variety of powers; we *merely know their effects*; we are in a state of ignorance with respect to their essences and causes.....From the phenomena, which are the objects of our senses, we attempt to infer a cause, which we call God, and gratuitously endow it with all negative and contradictory qualities. From this hypothesis we invent this general name to conceal our ignorance of causes and essences."¹

In fact, the theological speculations of Shelley in his early age breathed an air of sceptical doubts and cautious procedure strongly reminiscent of Hume. The accurate and life-like portraiture of the character of a sceptical philosopher which we find in Philo of his *Dialogues Concerning Natural Religion* seems to be perfectly applicable to Shelley at this stage of his mental development. He had, by that time, completely imbibed the spirit of scepticism which pervaded the doctrines of Hume. But it is not justifiable to regard these theories and arguments as mere abstracts of Hume's philosophy. Hogg, indeed, described in his *Life of Shelley* the genesis of the *Necessity of Atheism* in a manner which represented the treatise to be a mere analysis, or a transcript rather, from the arguments of Hume in his *Essays*. But a careful study of the essay itself gives an entirely different view of the matter. It has been definitely proved by a thorough analysis of the early prose pamphlets of Shelley that the *Necessity of Athesim*, far from being such an abstract of previous arguments, is, to quote the significant words of Dr. Peck, "an original composition dependent on heterogeneous sources."² It has been pointed

¹ Shelley, *Notes on Queen Mab*, VII, 13; cf. "We are ignorant, it is true, of the manner in which bodies operate on each other. Their force or energy is entirely incomprehensible. But are we not equally ignorant of the manner or force by which a mind, or even the supreme mind, operates either in itself or on body?"—Hume, *An Enquiry Concerning the Human Understanding*, VII.

² Peck, *Life of Shelley*, Vol. I.

out that Locke, Hume, Helvetius and D'Holbach were mainly responsible for the opinions and theories expressed in the book.

In 1814, Shelley published a pamphlet *A Refutation of Deism* in which he proposed to show the utter inability of human reason to form any adequate conception of God and his inscrutable ways. The arguments which the poet adduced in favour of his standpoint definitely show traces of the influence of Hume. We find in them the same cautious and hesitating attitude of mind, the same rejection of hasty conclusions and the same keen and minute analysis of the question at issue.

The facile optimism of the Deist is subjected to a concentrated attack before which it seems to crumble up into nothingness. Deistic philosophy may find a thousand and one marks of design and contrivance; it may discover a "wonderful adaptation of substances which act to those which are acted upon and thence infer a designer and contriver"¹ but Eusebes, the sceptical supporter of Orthodoxy even like Philo of Hume's *Dialogues Concerning Natural Religion* cannot accept these conclusions without examining them carefully. He lays special emphasis on experience as the basis of all knowledge. All inference concerning facts is, in every instance, derived by "transferring of experiments to similar cases"; and, consequently, every alteration of circumstances must, in the very nature of things, give rise to doubts and misgivings about the result.² "When two species of objects have been always observed to be conjoined together, I can infer by *custom* the existence of one whenever I see the existence of the other. But how this argument can have place where objects as in the present case, are single, individual, without parallel or specific resemblances may be difficult to explain."³ Eusebes

¹ Shelley, *A Refutation of Deism*.

² Hume, *Works*, Vol. II, p. 396. *Dialogues on Natural Religion*, Part II.

³ *Ibid.*, Vol. II, p. 398. *Ibid.*, Part II.

uses the same trend of argument for refuting the Deistic viewpoint. He points out that we admit design in a machine simply because in course of our own life we have come across "innumerable instances of machines having been contrived by human art." We can, at once, ascribe these effects to human intelligence because we know beforehand that it is capable of producing them. In the case of the world of nature, however, Eusebes observes, even as Philo pointed out, we have no such experience to fall back upon. Any attempt to discover the causes of its existence is consequently "presumptuous and unsatisfactory." Our "entire ignorance of Divine Nature" makes any such inference absolutely unfounded.¹

The evidences of design may indeed plausibly imply the existence of an "Author of Nature" but why should, contends Philo, the search of man for the ultimate reality stop there? If reason be so inquisitive about the origin of this material world why should it not be equally inquisitive regarding the creator of the Creator himself? "Have we not the same reason to trace that ideal world into another world or new intelligent principle? But if we stop and go no further, why go so far? Why not stop at the material world?" In fact, if the material world must have an ideal world as its basis there must inevitably be an endless progression from effects to causes. "It was therefore wise in us to limit all our enquiries to the present world without looking any further;" for "no satisfaction can ever be attained by these speculations which so far exceed the narrow bounds of human understanding." This material universe may well be regarded as having within itself the principle of order, a certain inviolable system necessarily producing the effects which we experience in our life.²

Eusebes seems to have been a close student of the *Dialogues Concerning Natural Religion*. Not only has he imbibed

¹ Shelley, A Refutation of Deism.

² Hume's Works, Vol. II, pp. 408-9. *Dialogues Concerning Natural Religion*, Part IV.

the spirit of scepticism which characterises a very important part of its arguments but he can, if occasion arises, adduce them in support of his own opinions. We seem to hear the accents of Philo when Eusebes confronts his deistic adversary with the apparently innocent query. "But if the fitness of the Universe to produce certain effects, be thus conspicuous and evident how much more exquisite fitness to his end must exist in the Author of this Universe?" Like Philo again he proceeds to argue that if we find it very difficult to believe, "from an admirable arrangement," that the Universe has existed from all eternity, how much more clearly must we perceive the necessity of this very Creator's creation whose perfections comprehend an arrangement far more accurate and just.¹ What was a mere conjecture with Hume, is now in a fair way towards becoming a certainty with Shelley.

One of the corollaries which plays a very prominent part in the theological speculations of Hume, is the principle that "the cause ought to be exactly proportioned to the effect." On this principle Philo the sceptic bases his arguments regarding the infinity, perfection as well as the unity of God.² This universe shows a wonderful combination of varied phenomena. If there were any *a priori* proof establishing the existence of one single Deity possessed of all powers requisite for the creation of these diverse phenomena it would have, indeed, been needless to multiply causes. But in the absence of any such *a priori* evidence, there is absolutely nothing in our world of experience which can convince us decisively that such divergent powers inhere in one Being. The question "whether all these attributes are united in one subject or dispersed among several independent Beings" remains well nigh insoluble.³

The arguments of Eusebes on this particular aspect of the controversy appear to be a mere paraphrase of the point of view

¹ Shelley, *A Refutation of Deism*.

² Hume's *Works*, Vol. II, pp. 412-13. *Dialogues Concerning Natural Religion*, Part V.

³ *Ibid.*, Vol. II, p. 414. *Dialogues Concerning Natural Religion*, Part V.

forcefully developed in the Dialogues of Hume. The passage itself is so reminiscent of the ideas of Hume as to deserve reproduction in its entirety. Eusebes observes "we can only infer from effects causes exactly adequate to those effects. An infinite number of effects demand an infinite number of causes, nor is the philosopher justified in supposing a greater connexion or unity in the latter than is perceptible in the former. The same energy cannot be, at once, the cause of the serpent and the sheep, of the blight by which the harvest is destroyed and the sunshine by which it is matured, of the ferocious propensities by which man becomes a victim to himself and of the accurate judgment by which his institutions are improved." The tentative suggestion in Hume is, again, elevated into an almost irrefutable argument in Shelley, and inspired by this trend of thought in Hume's philosophy Eusebes significantly points out that "the spirit of accurate and exact philosophy is outraged by conclusions which contradict each other so glaringly."

It is rather difficult to find out the standpoint of Hume from the *Dialogues Concerning Natural Religion*. In the Introductory Epistle, *Pamphilus to Hermippus*, the philosopher pointed out that the dialogue form, though unsuitable for "accurate and regular argument," is, by its very nature, peculiarly adapted for particular subjects. Many doctrines which are too obvious to require any methodical enquiry have, owing to their peculiar significance, to be constantly impressed upon the minds of men. In such cases the dialogue compensates, by the novelty of its method, the commonplace ideas, traditional or otherwise, which underlie the subject and by its vivacity "enforce the precept." Moreover when treating of a "question of philosophywhich is so obscure and uncertain that human reason can reach no fixed determination with regard to it" the most suitable form which suggests itself to the philosopher is that of the dialogue or conversation. The clash of arguments and theories, the brilliance of witty repartees and the light that such

discussions throw on the mentality of different types of men, all afford intellectual enjoyment of a high order especially when no cherished ideals are at stake. Applying these considerations to natural religion Hume was careful enough to analyse the inner significance of the problem. His analytical intellect soon discovered that the Being of a God has been universally acknowledged and is, at present, too obvious to need any further proof or arguments. It is also a truth which is of infinite importance for human life, being very closely associated, for centuries, with the highest aspirations of man and the deepest foundations of his moral world. But when we come to a discussion of His nature and attributes, we are in a veritable "Serbonian Bog" where "armies whole have sunk." Human reason comes baffled from an attempt to realise the Infinite and wordy disputes have, in all ages, been the only result of the creature's efforts to conceive and understand the Creator. "But these are topics so interesting that we cannot restrain our restless enquiry with regard to them; though nothing but doubt, uncertainty and contradiction, has, as yet, been the result of our most accurate researches." But the "sceptical doubts" which Philo raises against the arguments of Cleanthes weakens, to a very great extent, the theistic standpoint. The apparently cogent and close reasoning with which this sceptic assails Deism shakes the very foundations of belief and represents the philosopher as leaning very dangerously away from theistic principles. The fundamental principles of Hume's philosophy militated against the orthodox position; he could never accept the view which, like Locke, seeks to differentiate between the province of faith and that of reason. His Philo is candid enough to admit that "if we distrust human reason we have no other principle to lead us into religion."¹

If then, reason itself presents insurmountable difficulties in the way of the acceptance of a theistic theology, if it divests

¹ Hume's Works, Vol. II, p. 389. Dialogues Concerning Natural Religion, Part I.

the concept of God of all moral attributes¹ and develops very plausible alternative theories regarding the origin of the universe² the attenuated form of Deism which still remains after this destructive analysis cannot but perplex the students of his philosophy as to Hume's personal opinions. Yet there are indication in the dialogues themselves that the arguments of Philo, the sceptic, do not represent the author's standpoint. His insistence on the "weakness and narrow limits of human reason" its "uncertainty and endless contrarieties" can indeed hoodwink Demea, the defender of orthodox faith, but it is very clearly recognised by Cleanthes as veiling underneath its apparent vehemence "raillery and artificial malice."³ His attack against Deism is "somewhat between jest and earnest;" and leads to conclusions which Demea finds, all too late, to be as much subversive of orthodoxy as the principles of Cleanthes. "I joined in alliance with you," exclaims this 'rigid and inflexible' supporter of accepted opinions, "in order to prove the incomprehensible nature of the Divine Being, and refute the principles of Cleanthes, who would measure everything by a human rule and standard but I now find you running into all topics of the greatest libertines and infidels; and betraying the holy cause which you seemingly espoused. Are you secretly, then, a more dangerous enemy than Cleanthes himself?"⁴ The real standpoint of Hume seems to be summed up in the concluding speech of Philo: "If the whole of natural theology, as some people seem to maintain, resolves itself into one simple, though somewhat ambiguous, at least undefined proposition, that the cause or causes of order in the universe probably bear some remote analogy to human intelligence: If this proposition be not capable of extension, variation, or more particular explication: If it affords no inference that affects human life or can be the source of any action

¹ Hume, *Dialogues Concerning Natural Religion*, XI.

² *Ibid*, IX.

³ *Ibid*, I

⁴ *Ibid*, XI.

or forbearance: And if the analogy, imperfect as it is, can be carried no further than to the human intelligence and cannot be transferred, with any appearance of probability to the other qualities of the mind: If this be really the case what can the most inquisitive, contemplative, and religious man do more than give a plain, philosophical assent to the proposition? " He can only desire that Heaven would be pleased to dissipate, at least alleviate, this profound ignorance by affording "some more particular revelation to mankind and making discoveries of the nature, attributes, and operations of the Divine object of our faith." ¹

In his early youth, Shelley was considerably influenced by the deistic controversy prevalent in his age. In his letters he confessed that he was once a deist.² The arguments he adduced against Miracles both in his *Necessity of Atheism* and his *Refutation of Deism* show unmistakable traces of deistic thought. The rationalistic attack on the Hebraic conception of God which characterised the Deism of the eighteenth century was remarkably present even there. The writings of Hume with its "sceptical solution" of "sceptical doubts" weakened, to a very great extent, his adherence to deism. Moreover more uncompromising antagonists to orthodoxy like Helvetius, D'Holbach and other French philosophers of the Encyclopaedic school were gradually instilling into the mind of the poet ideas and principles converging more and more towards materialism. His admiration of *Le Systeme de La Nature*, and its uncommon powers,³ his long quotations from that book in his *Notes to Queen Mab*,⁴ his angry protestations against the popular belief that "disinterestedness is incompatible with the strictest materialism" all show a very marked inclination towards materialism. This tendency of

¹ Hume, *Dialogues Concerning Natural Religion*, XIII.

² Shelley, *Letter to Janetta Philips* (May, 1811).

³ Shelley, *Letter to Godwin* (June 3, 1812).

⁴ Shelley, *Notes on Queen Mab*, VII, l. 13.

thought was, however, merely strengthened by his study of the philosophers of the Revolutionary School in France ; it had originated earlier in the mind of the poet under the influence of Hume. As early as 1811, the youthful poet announced his rejection of natural religion and pointed out that it "arose wholly from reason."¹ Still earlier, he ridiculed the Deistic standpoint in his letters.² The attenuated form of Deism which Hume advocated in his Dialogues could not satisfy the critical attitude of mind which Shelley had developed in emulation of the philosopher himself. He could not possibly understand why going so far, Hume should not proceed further still and establish what he had himself suggested in his Dialogues, regarding the eternity of matter.

It was only natural that the peculiar situation created by the ambiguous position of Philo in the Dialogues should attract the poet. It seemed to suggest to him a similar line of attack. Could not he also like this nimble-witted controversialist, pose as a defender of the faith which, by his double-edged advocacy, he wanted to undermine ? In an age which shamelessly persecuted Mr. Eaton and other supporters of free-thinking for acts now regarded as ordinary occurrences of everyday life, it was indeed a great pleasure to see the engineer hoist with his own petard and illustrate the potency of free thought. Who knows that there was no "raillery or artificial malice" in Shelley when he sat down gravely to prove that "there is no alternative between Atheism and Christianity?" or that his vehement manner is not "somewhat between jest and earnest" when he endeavoured to show how much the cause of natural and revealed Religion has suffered from "the mode of defence of theosophical Christians?" Theosophus' searching analysis of Christian theology and traditions certainly requires answers more adequate and satisfactory than popular and cheap denunciations of human reason. Even the

¹ Shelley, Letter to Janetta Philips (May, 1811).

² Shelley, Letter to Hogg (May 8, 1811).

attack on the argument from design leads this ardent defender of orthodoxy to enunciate revolutionary principles like the eternity of matter or the doctrines of Necessitarian Philosophy. Far from suggesting the orthodox reply to these contentions, the poet-philosopher ends the dialogue in such a manner as to leave the reader in considerable doubts about his own point of view. Towards the end of the Dialogue itself indications are not wanting that his sympathies were leaning towards materialism, pure and simple. The ironical denunciation of the Atheist with which Theosophus answers Eusebes, the latter's eloquent defence of materialism, his anxiety to prove that the laws of motion and the properties of matter "account for every phenomenon or combination of phenomena exhibited in the universe" all plainly show the inner workings of the poet's mind. This materialistic point of view is, as has been pointed out before, definitely opposed to the Deism of Hume however attenuated it might have been by the reasonings of his sceptical mind.

The vision of the world thus created and expressed in a veiled manner in his *Refutation of Deism* is that of a vast complex blending of physical forces which necessarily move and have their being in the universe. It is a mechanical philosophy in which an immaterial creator is a mere superfluous hypothesis. Eusebes points out that although matter is often conceived of as deprived of all qualities, it is not, in reality inert. On the contrary "it is infinitely active and subtle;" and he seeks to prove that the properties of organised matter might be regarded as the efficient cause of all the universe. Accepting the necessitarian doctrines of the poet's newly-found preceptor, Godwin¹ and, under the influence of *Le Systeme de La Nature*. Eusebes asserts that

¹ There are, indeed, indications, in Hume's Dialogues Concerning Natural Religion which point to a necessitarian interpretation of the universe. "Chance has no place, on any hypothesis, sceptical or religious. Everything is surely governed by steady inviolable laws. And were the inmost essences of things laid open to us, we should then discover a scene, of which, at present, we can have no idea. Instead of admiring the order of natural beings, we should clearly see that it was absolutely impossible for them, in the smallest article, ever to admit of any other disposition." There are passages in Shelley's *Refutation of Deism*

“order and disorder are no more than our own perceptions of the relations which subsisted between ourselves and external objects.” They are mere “expressions denoting our perceptions of what is injurious or beneficial to our lives or to the beings in whose welfare we are compelled to sympathise.” Unlike Philo, he triumphantly concludes the discussion by enumerating the opinions which he has controverted by his sceptical doubts. “I have shown the absurdity of attributing intelligence to the cause of those effects which we perceive in the universe and the fallacy which lurks in the argument from design.” He has gone further and proved, or thinks he has proved, that “mind is the effect and not the cause of motion” and that “power is the attribute and not the origin of Being.” All these conclusions are, more or less, materialistic. Eusebes indeed uses them as so many warnings against the presumptions of human reason and invites Theosophus to choose between Atheism and Christianity; “to declare whether he will pursue his principles to the destruction of the bonds of civilised society or wear the easy yoke of a religion which proclaims : Peace upon earth and good will to all men.” But in the absence of any adequate defence of the orthodox standpoint especially when it has been so vehemently denounced by Theosophus, the line of argument which Eusebes adopts is at best inconclusive. If reason be impotent to judge the truth or falsity of rival theological principles is there any other guide for man to follow? Rejecting Deism what are the reasons for which man will embrace Christianity instead of the first system of religious superstition which he might find before him? Eusebes cannot enlighten any one on this vital question and consequently, his arguments arrive at a negative result which is more subversive of orthodoxy than the Deism of Theosophus.

which seem to echo the ideas underlying this standpoint of view, and it is a well-known fact that the poet was considerably influenced by the Philosopher. But the stronger influence on his mind, during this period of his life, was, as internal evidence drawn from his letters and his Notes on Queen Mab show, Godwin. His Political Justice undoubtedly formed the basis of the necessitarian doctrines that the poet formulated (*vide* Godwin and Shelley, Journal of the Department of Letters, Calcutta University, Vol. XX).

The greatest influence on Shelley during this period of his life was Godwin. His conception of necessity left a profound impression upon the poet's mind and was responsible for many of the arguments used in his *Refutation of Deism*. "The greatest, equally with the smallest movements of the universe, are" according to the poet "subjected to the rigid necessity of inevitable laws," and it is on this necessitarian principle that Eusebes finally based his opposition to the Deistic theory concerning the origin of the universe. He admits, indeed, that "the nature of these laws is incomprehensible," but, at the same time, regards the hypothesis of a Deity as a needless superfluity full of "inherent contradictions." The system of the universe is, consequently, upheld not by any spiritual Being but by physical powers or forces and Necessity had, as early as 1814, become the "mother of the world," the soul of all the objects in nature from the mighty spheres of heaven to the smallest mote that dances in the "April sun-gleam." It is impersonal and non-human binding the entire universe into one organic whole. The idealist outlook of Shelley could not, however, rest satisfied with materialism nor with necessitarianism. It soon created out of this Principle of Necessity a Spirit of Nature and of Intellectual Beauty which "consecrates with its hue" all the objects of the world and transforms them with its own radiance.¹

5

CONCLUSION

Hume and Locke, as we may well conclude from a detailed study of the letters and the prose pamphlets of Shelley, exerted a very great influence on the poet's mind when it was being gradually developed in his early youth. Locke's rejection of innate ideas and his theory of knowledge seem to have first

¹ *Vide* Godwin and Shelley, *Journal of the Department of Letters*, Calcutta University, Vol. XX, pp. 63-66.

made him conscious of the inadequacy of the orthodox point of view. By accepting the fundamental principles of Locke's philosophy as axiomatic truths Shelley was compelled to give up many of the cherished ideals of his early life. Refusing to accept without examination and analysis the established opinions of the age, Shelley had to utilise the introspective method newly formulated by the philosopher in order that he might thereby build up for himself his own system.

The years 1810-12 mark a critical stage in the development of the poet's mind. His study of sceptical thought was slowly undermining the foundations of faith, yet his attachment to the orthodox beliefs of his childhood and early youth made him reluctant to abandon them. There is, consequently, in the speculations of Shelley, during this particular period of his life, a note of doubt and hesitation ; and it is a significant fact that the arguments he used for the purpose of propping up his tottering faith were either derived from or considerably influenced by Locke.

By the time that the poet wrote and published his *Necessity of Atheism* (1811), there is discernible in his opinions, a distinct tendency towards *sensationalism*. In his interpretation of Locke's system of philosophy, the poet, under the influence of the atmosphere of thought in the midst of which he then lived, showed an incapacity very natural in an untrained mind, to appreciate and understand its fundamental principles. The special emphasis he laid on sensations alone as the material of knowledge and the nature of the grounds of belief he enumerated in the same treatise, plainly indicate the growing influence of Hume on his mind. In fact from this time onward the "sceptical doubts" and "sceptical solutions" of Hume began to mould, in an ever-increasing degree, Shelley's thoughts and ideals. The searching analysis to which he subjected many of the arguments of Locke, his definition of causation as a mere "constant conjunction of objects and the consequent inference of one from the other" mark a definite change in his outlook.

Moreover his conflict with orthodoxy embittered the poet's soul to such an extent that he could not patiently consider any opinion which appeared to support popular views on the church and the state. Consequently he attacked Locke's standpoint regarding such questions with a violence unworthy of a disinterested seeker after truth. His characterisation of the peculiar system of morality developed by Locke as the philosophy of slavery and superstition clearly indicates how exasperated the poet was by the assistance which Locke rendered to the cause of established opinion. His contemptuous reference to the attempts of Locke to demonstrate the reasonableness of Christianity and the existence of a supreme Deity governing and ordering the universe clearly mark a distinct change in the poet's attitude towards his erstwhile master. Though Shelley still retained his faith in the introspective method of Locke his speculations on morals were steeped in an atmosphere strongly reminiscent of Hume. Locke's theological interpretation of morality as based on the Will of an Omnipotent Law-giver enforced by rewards and punishments in a future state was now refuted by arguments which have a very suspicious resemblance to the doctrines of that sceptical thinker ; and although the poet differed considerably with Hume in his definition of Justice, the peculiar emphasis that he laid on the utilitarian basis of ethics, the significant prominence he gave to Benevolence and the altruistic aspects of the human personality, his very conception of ethics as a science—all show unmistakably the influence of that utilitarian philosopher.¹ Shelley's rejection of miracles in his *Notes on Queen Mab* (1813) was similarly based on Hume's celebrated essay on that subject while " sceptical doubts " concerning the immortality of the soul in his fragmentary essay *On a Future State* were considerably indebted to the same authority. Moreover it is a very significant fact that, in this as well as other pamphlets of Shelley, mere suggestions thrown out

¹ Shelley, *Speculations on Morals*.

by the philosopher were often exalted into definite theories which the poet considered to form the very basis of his opinion.

Shelley's *Refutation of Deism* (1814) occupies a very significant position in the development of his mind. Not only is the dialogue form strongly indicative of the ascendancy of Hume over the mind of the poet but many of the arguments he used in order to bring out the inadequacy and, more often than not, the absurdity, of the Deistic standpoint are mere paraphrases from Hume's *Dialogues on Natural Religion*. The very manner in which Shelley changed his description of the growth and development of religious ideas in primitive man shows how firm a hold the philosopher now had on the poet and in fact the entire account is, more or less, a mere synopsis of Hume's *Natural History of Religion*. In spite, however, of such strong proofs of Shelley's admiring discipleship of Hume, the treatise itself marks a growing tendency in the mind of the poet towards materialism pure and simple. Containing as it does a very eloquent account of the universe as a complex blending of stupendous physical forces, as well as an able attempt to prove motion and matter to be the basis of all objects in the universe, the dialogue defeats its own apparent purpose and shows that D'Holbach and other materialists of the revolutionary school of thought in France were already exerting a great influence on the poet's mind.¹

Idealist that he was, Shelley could not long live in this atmosphere of scepticism far less of positive materialism. The introspective method that he had, very early in life, learnt from Locke now came to his assistance. His innate Idealism triumphed over an intellectual adherence to materialism which did violence to his own nature ; and the poet came to recognise in man a spiritual element which transcended things material. He came to realise that he had, all this time, been blinded by the "seductions" of materialism, which, in the light of his inner vision, was entirely powerless to solve the problems of life or

¹ Vide Note A.

give any adequate idea of the reality underlying appearances. In the *Speculations on Metaphysics* written just a year after his *Refutation of Deism*¹ Shelley reverted to his older standpoint. He now admitted the intuitive nature of our knowledge of self and the explanation he gave regarding our knowledge of other minds shows a very close resemblance to the standpoint of Locke. In his essay *On the Punishment of Death*, again the poet utilised arguments similar to those of Locke for the purpose of proving the existence of that very future state which he had sought to disprove earlier in life.

This reversion to Locke was, however, very short-lived. The political and social movements then prevalent soon came to overshadow all other interests. Alluring visions of rousing Irishmen to a proper sense of their own grievances, his eager desire to establish Associations of Philanthropists for furthering the cause of liberty and his anxious expectancy of an approaching Millennium now engrossed the attention of the poet and Godwin replaced Locke and Hume.

¹ Cf. "Here I was obliged to leave off, overcome by thrilling horror.—This remark closes this fragment, which was written in 1815. I remember well his coming to me from writing it, pale and agitated, to seek refuge in conversation from the fearful emotions it exerted [Note by Mrs. Shelley on Shelley's "*Speculations on Metaphysics*."]

APPENDIX

BARON D'HOLBACH AND SHELLEY ¹

Even during his residence at Oxford, Shelley had come into contact with the materialistic school of philosophy then prevalent among the revolutionary thinkers of France. As has been already pointed out by critics of Shelley, his *Necessity of Atheism* shows distinct traces of its influence on his mind ; and any close student of the early pamphlets of Shelley cannot but discern how the poet was gradually progressing from the Lockian standpoint not only to Hume's scepticism but from Hume to the materialism of the French School. The greatest protagonist of materialism in France whose treatise, first published in 1770, disturbed the placid contentment of the world of culture was D'Holbach. But Baron D'Holbach did not, at that early age, influence the mind of the poet. As a matter of fact, although Shelley afterwards read with enthusiasm the *Système de La Nature* he never suspected D'Holbach to have been its author. On the contrary, he sometimes assigned it to Helvetius and sometimes to Mirabaud. In 1812, as he informed Godwin, he had just finished reading, "Le Système de La Nature par M. Mirabaud" and considered it to be a work of uncommon powers. In the treatise itself he came into contact with principles and opinions which found a ready response in his mind, absorbed, as it then was, in projects of annihilating intolerance and, with intolerance, religion itself ; and such was his enthusiastic admiration of the doctrines it upheld that he eagerly wanted to translate the treatise for the regeneration of his benighted countrymen.²

¹ For an adequate estimate of *Le Système de La Nature*, vide—

1 Morley's Summary of D'Holbach's philosophy in his Diderot.

2 Lange, History of Materialism.

3 Martin, French Liberal Thought in the XVIII Century, VII, pp. 170-77.

² Shelley, Letter to Bookham (Aug. 18, 1812).

It was only natural that this ardent admiration should not be without its effect on the impressionable mind of youthful Shelley ; and in his earlier prose pamphlets there are indications which unmistakably prove that he was, for some time at least, not only a firm believer in its materialistic doctrines but eager to disseminate them among his countrymen.

D'Holbach regarded Theism or rather the Christian idea of God prevalent in his own age as a great impediment to human progress. Keenly alive to the miseries which result from the inequities of contemporary society he sought the social deliverance of man in the emancipation of his intellect. Knowing full well how the entire organisation of religion had been utilised for the suppression of freedom in the realm both of action and of thought he wanted to cut the Gordian knot by annihilating religion itself. He went to the very root of the matter and refused to accept anything which had the slightest tinge of the supernatural. Morley quotes the following passage as illustrative of the general outlook of this revolutionary thinker : " Let man cease to search outside the world in which he dwells for beings who may procure him a happiness which nature refuses to grant ; let him study that nature, let him learn her laws and contemplate the energy and unchanging fixity with which she acts,.....let him consent to ignore the causes surrounded as they are for him by an impenetrable veil, let him undergo without a murmur the decrees of universal force."

The progress of science in the eighteenth century was not without its influence on this rationalist thinker and it is not at all surprising to find him enunciate the principle that " Science derived from experience is the source of all wise action." In fact the senses are, according to him, the basis of all knowledge. Through the senses alone man comes into contact with the external world ; through them does he discover its profoundest secrets. Physical sciences are, consequently, of the highest authority, along with experience, on all questions, religious, social, moral or political. Proceeding along this scientific line of

thought D'Holbach regarded matter to be eternal and the external world of nature to be the result of this matter in motion. Matter and motion—these two are, according to this materialist, the fundamental principles of the Universe. Both of them have existed from all eternity and are closely interrelated. In course of developing his naturalistic theory of the world D'Holbach, however, did not accept the conception of matter then current among thinkers and writers. "Instead of regarding matter as a unique existence, rude, passive, incapable of moving itself, of combining itself," the true philosopher should try to conceive it "as a *kind* of existence;" each individual comprising this kind might have certain common attributes like extension, impenetrability, but "cannot be ranged in a single class." It may also have characteristics which differentiate it from all others. It is thus not *abstract* matter shorn of all individual peculiarities but *concrete* objects which formed the constituents of the external world. Motion again, in the opinion of this ardent materialist, is not something super-imposed upon matter by some external reality. It is, on the contrary, "a fashion of being which flows necessarily from the essence of matter; matter moves by its own energy; its motion is due to forces inherent in it."

The picture that D'Holbach conjures up before the mind's eye of the imaginative philosopher has been very beautifully summed up by Morley. "From the stone which is formed in the bowels of the earth by the intimate combination, as they approach one another, of analogous and similar molecules, up to the sun, that vast reservoir of heated particles that gives light to the firmament; from the numb oyster up to man—we observe an uninterrupted progression, a perpetual chain of combinations and movements, from which there result beings that only differ among one another by the variety of their elementary matters and of the combination and proportion of those elements." As an inevitable corollary to this mechanical and necessitarian conception of the universe D'Holbach had to accept the principle that order and disorder are mere abstract terms having no

objective reality and consequently the argument from design which had so long been trotted out by deistic philosophers can have no validity of its own. Nor could he accept the idealistic view of the human personality. Man is nothing but a mere link in the eternal chain of nature. All his activities, mental or otherwise, are nothing but the result, complex though it be, of the elements of which his physical being is composed. But unable to explain naturally all the phenomena so intimately bound up with our existence, we are so far bewildered by "the variety and complication" of our organism and its movement that we invent mind, "an occult force," dragged in to explain some unexplained facts of our life. To the defender of the idealistic view this philosopher of materialism puts a few cogent questions which he considers to be unanswerable: "How can we figure to ourselves a form of being, which, though not matter, still acts upon matter, without having points of contact or analogy with it; and, on the other hand, itself receives the impulsions of matter through material organs that warn it of the presence of external objects?" Again, "How can we conceive of the union of the body and soul, and how can this material body enclose, bind, constrain, determine a fugitive form of being, that escapes every sense?" These are indeed difficulties which an idealist must reconcile. To call in an Omnipotent Being for explaining these enigmas is nothing but an abject "confession of ignorance." Mind is, consequently, nothing but a resultant of the mechanical forces of necessity which lie at the very basis of the universe as we see it around us.

As early as 1811 when Shelley wrote his *Necessity of Atheism* he was unmistakably leaning towards materialism. This tendency of thought was, in his case, more or less, a reaction against what he himself considered to be "the absurdities of the popular philosophy of mind and matter, its fatal consequences in morals and its violent dogmatism."¹ It had, however,

¹ Shelley, *On Life*.

an added interest for the poet, associated as it then was, with some of the most distinguished natural philosophers "to whom" to quote the poet's own words again, "we are indebted for the most stupendous discoveries in physical science."¹ Naturally he had no difficulty in accepting their theory that sensations are the basis of all knowledge. It is on this fundamental principle that the atheist of Oxford built his entire superstructure of arguments in defence of that unpopular creed. He even did not scruple to repudiate his erstwhile teacher Locke and assert with all the emphasis that he could command that—

"The senses are the sources of all knowledge to the mind; consequently their evidence claims the strongest assent.

The decision of the mind, founded upon our own experience, derived from these sources, claims the next degree."

And "the experience of others, which addresses itself to the former one, occupies the lowest degree." This is, to all intents and purposes, nothing but an accurate exposition of the sensationalist school of thought and clearly demonstrates to what great extent the youthful mind of the poet had been influenced by materialism before he came to study one single page of D'Holbach.²

The study of D'Holbach, however, strengthened these tendencies of thought in Shelley and his long philosophical *Notes to Queen Mab* are full, not only of echoes from *Système de La Nature* but of distinct and acknowledged borrowings and quotations as well. It is a very remarkable fact that in support of the two fundamental principles underlying the poem, namely, the doctrine of

¹ Shelley, *On a Future State*.

² The earliest reference to D'Holbach's *Le Système de La Nature* that we get in Shelley's letters is dated June 3, 1812. In a letter of that date the poet informed Godwin that he had just finished reading "*Le Système de La Nature par Mirabaud*." He did not even then know the true author of this treatise. He again referred to it in a letter, dated July 29, 1812, when he "suspected it to be by Helvetius." The growing influence of the book on Shelley's mind is discernible still later (Aug. 18, 1812). He was then fully convinced of its beneficial effect on the human mind and sought to translate it for the edification of his contemporaries.

necessity and the emphatic or rather over-emphatic assertion of anti-theistic ideas, Shelley cited, with a distinct note of self-complacency, not Godwin, his mentor, but D'Holbach.

The influence of the *Système de La Nature* on the theological and philosophical outlook of the poet is more markedly evident in his *Refutation of Deism* than anywhere else. The main principles which D'Holbach sought to elaborate are all represented in the speech of Eusebes; and we seem to feel that Shelley is only reproducing the arguments of the French materialist when Eusebes describes the human mind as nothing but the passive recipient of impressions from outside. The same note of materialism we discern in the argument which this ambiguous supporter of orthodoxy adduces to prove that what we call the soul or the mind must be "considered as the effect, rather than the cause of motion." Nor is Eusebes contented with the acceptance of this part of his principles. On the contrary, the entire system of ideas which the *Système de La Nature* elaborated is utilised by this defender of faith with the sole object of demolishing the deistic point of view.

He does not take anything for granted, not even the idea of the creation of the universe. "Until it is clearly proved the universe was created, we may reasonably suppose that it has endured from all eternity;" and to this admiring disciple of D'Holbach fresh from his study of the *Système de La Nature*, it appears to be far easier to regard the universe as having existed from all eternity, than to conceive an Eternal Being capable of creating it. "If the mind," he asks, "sink beneath the weight of one, is it an alleviation to increase the intolerability of the burthen?"¹ The materialistic conception of the universe hinted at as a possible interpretation of the eternal world soon becomes a certainty when Eusebes, his imagination all aflame with such a glorious vision of one vast unity, proceeds to depict it, in glowing terms, as an interplay of physical

¹ Shelley, *Necessity of Atheism*.

forces necessarily combined together. The influence of the *Système de La Nature* is plainly manifest in the vivid picture that he draws for the express purpose of refuting the arguments of Deism. "The greatest, equally with the smallest motions of the universe," he points out, "are subject to the rigid necessity of inevitable laws. These laws are unknown causes of the known effects perceivable in the universe. Their effects are the boundaries of knowledge, their names the expressions of our ignorance." The acceptance of necessitarian doctrines was, indeed, one of the results of Shelley's study of Godwin's *Political Justice*; but it must be remembered in this connection that Godwin himself was indebted to D'Holbach and others for the enunciation and development of his theory; and Shelley's own exposition shows suspicious resemblances to D'Holbach's. Such suspicions are all the more strengthened when in the very next sentence the reader is confronted with ideas which almost echo the French materialist. "To suppose," proceeds Eusebes, "some existence beyond or above them, is to invent a second and superfluous hypothesis to account for what has been already accounted for by the laws of motion and the properties of matter." Again, "The system of the universe is upheld solely by physical powers. The necessity of matter is the ruler of the world." Not only so, Eusebes is now fully convinced that "the known laws of matter and motion, suffice to unravel, even in the present state of moral and physical science, the majority of those difficulties which the hypothesis of a Deity was invented to explain."

The problems which seem to offer an insurmountable difficulty to such a materialistic conception of the world now have little significance for Eusebes. It is ignorance alone which, according to him, prevents us from explaining each and every phenomenon, however complex or minute it might be, by reference to the laws of nature; with the progress of knowledge these difficulties, we are indirectly assured, will gradually vanish and more evidence will be adduced in favour of this type of

materialism. The conception of matter which Eusebes develops in the *Refutation of Deism*, reveals very significantly interesting points of resemblance with that of the *Système de La Nature*. This ardent student of D'Holbach could very well appreciate the French philosopher's rejection of abstract matter. "Doubtless no disposition of inert matter," so he asserted in his *Refutation of Deism*, "or matter deprived of qualities, could ever have composed an animal, a tree or even a stone. But matter deprived of qualities is an abstraction, concerning which it is impossible to form an idea. Matter, such as we behold it, is not inert. It is infinitely active and subtle."

The same influence is discernible in the poet's conception of order and disorder. D'Holbach had pointed out that in this necessitarian world of ours there can be no question of order or disorder. As has been already explained such concepts correspond to no objective reality but are entirely dependent on the standpoint of the perceiving subject. Shelley, an ardent student of *Political Justice*, had been attracted towards D'Holbach by Godwin's acknowledgement of his indebtedness to this materialist philosopher. It is only natural that he should accept his principles and reproduce them in the writings of his youth. Like D'Holbach he was at that early period of his life, of opinion that "order and disorder are merely modifications of our perceptions of the relations which subsist between ourselves and external objects." The very terms are nothing but "mere expressions denoting our perceptions of what is injurious or beneficial to ourselves or to the beings in whose welfare we are compelled to sympathise by the similarity of their conformation to our own."

D'Holbach's thorough-going materialism made it impossible for him to attribute any personality to Nature. Physical laws can have no affinity to human qualities and the philosopher always cautioned earnest seekers after truth against the anthropomorphic tendency of the human mind. His *Nature* is not a vague abstraction capable of being personified. The poetic mind of Shelley, ever eager to create beautiful and concrete images

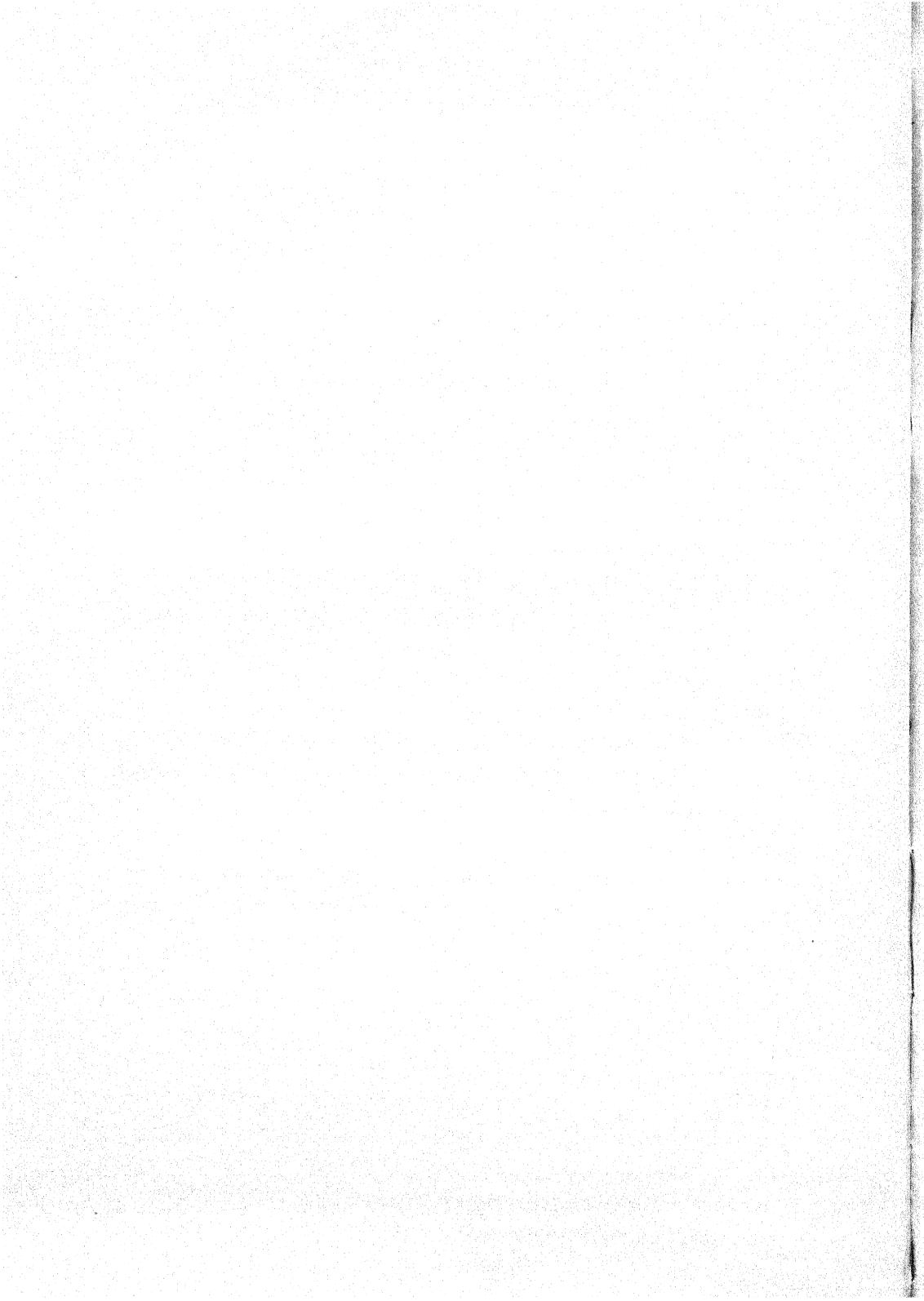
of truth could not, however, rest satisfied with such an absolutely mechanical conception of the underlying forces of nature. Although in his *Notes on Queen Mab* (VI, 198) he had criticised men for endowing the "unknown cause of known events" with human qualities yet in the very same poem he unconsciously created a Spirit of Nature out of the Godwinian principle of Necessity. The latent idealism of his mind gradually rebelled against the convictions of his intellect till it triumphed over them and this crudely conceived Spirit of Nature soon developed into the sublime creation of Shelley's imagination whose plastic stress sweeps over the commonplace materials of the world, and transforms them into radiant forms of beauty and truth.

Though from 1812 when Shelley first read '*Le Système de La Nature*' to 1814 when his *Refutation of Deism* was published D'Holbach exerted a very great influence over the mind of the poet, the question of determining the extent of this influence is rendered very difficult by the fact that Godwin also derived many theories and ideas from the same source. And knowing, as all critics of Shelley do, how Godwin dominated over Shelley during the same period, it is often doubtful as to whether the poet derived a particular idea from *Political Justice* or from *Système de La Nature*. As a matter of fact, many ideas, e.g., of Necessity, which it is very natural to regard as being borrowed from D'Holbach, appear, on closer analysis, to have been, by reason of close parallelism of thought and even of phraseology, derived from *Political Justice* rather than from anything else. Closer personal contact between Godwin and Shelley, the poet's increasing absorption in the social and political theories of his preceptor, gradually overshadowed everything else and the very fact that Shelley gave up the project of translating D'Holbach seems to indicate that he had definitely freed himself from the influence of the materialistic philosopher.

In course of time, the innate idealism of Shelley's mind rebelled even against the Necessitarianism of Godwin not to speak of the more pronounced materialism of the French

school. The poet's repudiation of these doctrines as expressed in *On Life* and his letters was absolutely unequivocal and definite. His interesting analysis of his lapse into materialism unmistakably show with what contempt he, at a subsequent period, regarded his early preceptors. His poems are all steeped in the atmosphere of idealistic thought. Sometimes his mystic experiences and intuitive visions so enthusiastically celebrated in his *Epipsychidion*, *Hymn to Intellectual Beauty* or *Prometheus Unbound* make one wonder whether this was the same Shelley who once regarded mind to be a mere function of matter. In fact it might be asserted without any fear of contradiction that the period during which the poet was expatiating on the glorious vision of an absolutely mechanised universe was one not of development and progress but of retrogression. He was all this time painfully trying to compel his whole personality to proceed along lines entirely injurious to its own growth. The extent of his reaction against the system of materialistic thought plainly indicates how he was, under a misconceived notion, seeking to do violence to his own nature.

In spite, however, of these injurious effects on his own self, materialism and sceptical thought did one service to the poet. They woke him to a sense of the falsehood and absurdity of much of his earlier orthodox opinions. Under the searching analysis which is a fundamental characteristic of the methods used by sceptics and materialists of the days of Shelley, the cruder ideas of the poet on such questions as the immortality of the soul, the existence of a Deity, underwent a remarkable transformation; and the idealism of Shelley in his later days had little in common with his earlier beliefs. The spirit of orthodoxy had to be exorcised from the mind of Shelley before he could soar to the highest regions of idealistic thought. This process might be painful but it was none the less necessary.



THE ŚIVA SŪTRAS

BY

KSHITIS CHANDRA CHATTERJEE, M.A.

The fourteen rules अड्डण्, etc., are known as the Śiva Sūtras. According to one view Śiva was the first grammarian. He taught these rules to Pāṇini. We read in the Kathā-saritsāgara, Kathāpīṭhalambaka, Taraṅga IV, śls. 20-22.—

अथ कालेन वर्षस्य शिष्यवर्गो महानभूत् ।
ततैकः पाणिनिर्नाम जडबुद्धितरोऽभवत् ॥
स शुश्रूषापरिक्लिष्टः प्रेषितो दासभार्यया ।
अगच्छत्तपसे खिन्नो विद्याकामो हिमालयम् ॥
तत्र तौत्रेण तपसा तोषितादिन्दुशेखरात् ।
सर्वविद्यामुखं तेन प्राप्तं व्याकरणं नवम् ॥

In the Haracarita-cintāmaṇi (XXVII. 72-74) we read—

अथ कालेन महता शिष्या वर्षमुपाययुः ।
एकोऽपि पाणिनिर्नाम जडबुद्धिरुपाययौ ॥
शिष्यान्तरोपहासेन सावमानः स पाणिनिः ।
शुश्रूषाक्लेशतो यातः कदाचित्त हिमाचलम् ॥
आराध्य तपसा तत्र विद्याकामः स शंकरम् ।
प्राप व्याकरणं दिव्यं स च विद्यामुखं शुभम् ॥

The same thing is also found in Br̥hat Kathāmañjari, I. 71-73—

शङ्करः शाङ्करीं प्रादाद्वाक्षीपुत्राय धीमते ।
वाङ्मयेभ्यः समाहृत्य देवीं वाचमिति स्थितिः ॥

In the Pāṇiniya Śikṣā (56-57) we find—

येनाक्षरसमाख्यायमधिगम्य महेश्वरात् ।

कृत्स्नं व्याकरणं प्रोक्तं तस्मै पाणिनये नमः ॥ 57

In Bengal there is a tradition that Māheśvara Vyākaraṇa was the first and best grammar :

पदज्ञैर्नातिनिर्वन्धः कर्तव्यो मुनिभाषिते ।

अनुस्मरणतात्पर्यान्नाद्रियन्ते हि लक्षणम् ॥

यान्युज्जहार माहेशाद् व्यासो व्याकरणार्णवात् ।

तानि किं पदरत्नानि सन्ति पाणिनिगोष्पदे ॥

न दृष्टमिति वैयासे शब्दे मा संशयं कृथाः ।

अक्षैरज्ञातमित्येव रत्नं न हि न विद्यते ॥

(Gopāla Cakravartin's commentary on Saptasatī, 1. 1.)

According to another legendary view, Mahādeva at the end of his Tāṇḍava dance struck his drum fourteen times and each stroke brought out a sūtra :

नृत्यावसाने नटराजराजो ननाद दक्षां नवपञ्चवारान् ।

उद्धर्तकामः सनकादिसिद्धानेतद् विमर्शं शिवसूत्रजालम् ॥

(Nandikeśvara Kāśikā, I. 1.)

According to this view माहेश्वरं सूत्रम् means not महेश्वरेण प्रोक्तम् but महेश्वरादागतम्.

Whatever the historical value of the above views may be they clearly point to one fact, viz., the Śiva sūtras are not the composition of Pāṇini but existed most probably in the same form long before his date. This conclusion is strengthened by the fact that Patañjali while apologising for the विधेयाविमर्श in the sūtra वृद्धिरादैच् distinctly pronounces it to be the first rule of Pāṇini. इदमेकमाचार्यस्य मङ्गलार्थं नृण्यताम् । मङ्गलादीनि हि शास्त्राणि प्रथन्ते वीरपुरुषकाणि भवन्त्यायुष्मत्पुरुषकाणि च, अध्येतारश्च वृद्धियुक्ता यथा स्यः । (Mahābhāṣya, ed. Kielhorn, I, p. 40, ll. 6-9.)

Candra also observes :

एष प्रत्याहारः पूर्वव्याकरणेष्वपि स्थित एव । अयं तु विशेषः—ऐञ्चोष् इति यदासीत् तद् ऐञ्चोजिति कृतम् । तथाहि लघावन्ते च बह्वो गुरुः [फि. सू. २।१८], ढणधान्यानां च ह्यषामिति [फि. सू. २।४] पठ्यते ।¹ (p. 5, ll. 9-12).

Candra concludes from several *Phitsūtras* that the original form of the *sūtras* has generally been retained with the exception of ऐञ्चोष् which was originally ऐञ्चोष. This is, however, very doubtful. Many new technical terms are met with in the *Phitsūtras*, but it would not be safe to conclude for that reason that all these terms are anterior to Pāṇini.

Nāgeśa also remarks in his लघुशब्देन्दुशेखर (Benares edition, p. 8)—ऋक्तन्त्रव्याकरणे शाकटायनोऽपि । इदमक्षरच्छन्दो वर्णशः समनुक्रान्तम् । यथाचार्या जनुः—ब्रह्मा ब्रह्मस्यतये प्रोवाच, ब्रह्मस्यतिरिन्द्राय, इन्द्रो भरद्वाजाय, भरद्वाज ऋषिभ्य ऋषयो ब्राह्मणेभ्यः । * * * वृत्तिसमवायार्थो वर्णानामुपदेश इति भाष्य उक्तम् । पाणिनेर्लाघवेन शास्त्रप्रवृत्तिफलको यः समवायो वर्णानां क्रमेण सन्निवेशस्तदर्थ इति तदर्थः । स चाणादिप्रत्याहारद्वारा शास्त्रप्रवृत्तार्थः । एवं चायमुपदेशः पाणिनेरन्यकृत इति स्पष्टमेवोक्तम् ।

It is evident, as Nāgeśa points out, that the *Siva sūtras* were primarily intended for *Pratyāhāras* and not for a phonetic classification of Sanskrit sounds. Kaiyaṭa also says the same thing—प्रयोजनार्थो हि वर्णानामुपदेशो न स्वरूपप्रतिपत्त्यर्थः. Though in one passage of the *Bhāṣya* we find—

वर्णज्ञानं वाग्विषयो यत्र च ब्रह्म वर्तते ।

तदर्थमिष्टसिद्ध्यर्थं लघुर्थं चोपदिश्यते ॥ (ed. Kielhorn, I, p. 36, ll. 14-15.)

¹ Mr. B. Faddegon is, in my opinion, wrong in holding that the chief purport of the *Siva sūtras* is a phonetic classification. The repetition of ह as well as the inversion of the natural order of the voiced aspirates, nasals, etc., is enough to disprove his assertion. He is further wrong in regarding कु as a प्रत्याहार. Bhaṭṭoji distinctly says—आदिरन्त्ये नेत्येतत्सूत्रेण कृताः संज्ञाः प्रत्याहारशब्देन व्यवह्रियन्ते, i.e., technical devices formed with the help of the *sūtra* आदिरन्त्ये न सङ्केता are known by the name of प्रत्याहार.

where a knowledge of the letters also is mentioned as one of the objects of the Śiva sūtras, still that can, by no stretch of the imagination, be regarded as the principal object.¹ For easy reference we give below the Śiva sūtras as found in Pāṇini's Aṣṭādhyāyī and their corresponding rules from the Mugdhabodha. The sūtras as found in Pāṇini are: अइउण्, ऋलृक्, एओङ्, ऐऔच्, हयवरट्, लण्, जमङणनम्, भभज्, घढधष्, जवगडदश्, खफछठथचटतव्, कपय्, शषसर, हल्.

The same rules are found in Bhoja's Sarasvatikanṭhābharanam and other works of the Pāṇini school, as well as in the Agnipurāṇa. In the Cāndra Vyākaraṇa the अक्षरसमाग्राय is generally the same as we find in Pāṇini, only the fifth and sixth Śiva sūtras have been combined into one, *viz.*, हयवरलण्. The Mugdhabodha has gone much farther than its predecessors and has remedied certain defects in the Śiva sūtras. It not only combines the fifth and sixth sūtras but the first and second as well. The sūtra found in the Mugdhabodha is: अइउऋलृक् एओङ् ऐऔच् हयवरल जणनडम भढधषभ जडदगव खफछठथ चटतकप शषसाद्यन्ताख्याः ।

In the original Śiva sūtras the final consonant in every case is indicative. Pratyāhāras are formed by taking any letter of the fourteen rules and placing immediately after it an indicative letter subsequent to it. The Pratyāhāra so formed will denote the initial letter as also all the intermediate letters. Thus अण् means अ, इ, उ, यञ् means य, व, र, ल, ज, म, ङ, ण, न, भ, ञ and so on.

Vopadeva found that an indicative letter was necessary in the case of the pratyāhāras for vowels to avoid the hiatus caused by two vowel sounds coming together, but in the case

¹ In spite of the assertion of Liebig I have some doubts as to the authorship of the Vṛtti attributed to Candra. For one thing, in the Vṛtti on उपजीपक्रमं तदादिले (II. 2. 68) we find the example चन्द्रोपक्रमसंज्ञकं व्याकरणम्. Now if Candra himself had composed the Vṛtti we should expect to find the name of one of his predecessors here and not his own name. I cannot recall a single instance where a grammarian mentions his own name in an example to his rule.

of consonants or vowels and consonants no special, ^{indicatory} letter was needed. The first and last sounds placed in ^{the} ^{an} ^{ta} ^{position} might easily imply these as well as the intervening ones by what is known as the Sandaṁśa nyāya or the maxim of the forceps¹ and consequently dispensed with the *anubandha* in these cases.

In the *Phitsūtras* we find several *pratyāhāras* which are identical with those accepted by Pāṇini and a few which are different. In II. 4.19.24.26 and III. 2. we get अच् or अश्च which corresponds to अच् of Pāṇini. In II. 26. occurs इक् identical with Pāṇini's इक्. II. 25 and III. 17 contain ह्य् in the sense of our हल्. उवन्तं सविपूर्वस्य कृतिमाख्या चेत्, II. 8, is obscure. Bhaṭṭoji reads खय्वर्णं कृतिमाख्या चेत् and Kielhorn thinks that this is undoubtedly the right reading. I have, however, grave doubts on this point. If ह्य् stands for हल्, खय् can hardly be expected to be identical with the खय् of Pāṇini's system. The materials at our command are very scanty and do not warrant any deduction.

The chief defects of the Śiva sūtras are :—

(1) The repetition of the *anubandha* ए which occurs in the first as well as sixth sūtra thus leading to confusion ;

(2) The repetition of ह् which is found in the fifth and fourteenth sūtras ;

(3) The sūtras लश्च and हल् consisting only of single letters ;

(4) The splitting up of the voiced aspirates into two parts—भ्रमञ्च and चटञ्च ;

(5) The splitting up of the voiceless unaspirates into two parts—one part tagged on to the voiceless aspirates and the other kept separate—खफकठथचटतव् and कपय् ;

¹ Dr. Belvalkar is wrong when he speaks of the absence of all 'its' of the "Pāṇiniya System" in '*pratyāhāras*' of Muḍḍhabodha. There are no less than three 'its' in Vopadeva's system which are identical with those of the Pāṇiniya system. It is a great pity that the learned Doctor did not take the trouble of reading the first page of the book, for we find there: इत् कृते । कश्चित् कार्याद्योच्चार्यमाणो वण इत्संज्ञः स्यात् ।...यथा अचि कञ्चाः संज्ञार्थाः ।

(6) The change of the natural order of nasals, and the voiceless and voiced consonants.

1. Now, as to the first point. It is difficult to understand the predilection of the ancients for ण. They might have easily utilised न, स, प, etc., for this purpose. As it is, however, अण् and इण् which are the only pratyāhāras with ण require explanation at every step. Patañjali thus discusses the question :—

अयं णकारो हिरनुबध्यते पूर्वश्चैव परश्च । तत्राणग्रहणेष्विणग्रहणेषु च सन्देहो भवति पूर्वेण वा स्युः परेण वेति । कतरस्मिंस्तावद् ग्रहणे सन्देहः । द्रुलोपे पूर्वस्य दीर्घोऽणः (VI. 3. 111)...केऽणः (VII. 4. 13)...अणोऽप्रगृह्यस्यानुनासिकः (VIII. 4. 57)...उरण् रपरः (I. 1. 51.)...अणुदित्सवर्णस्य चाप्रत्ययः (I. 1. 69).

After discussing the question fully Bhāṣyakāra asks the question as to why ण should be selected for this office twice.

किं पुनर्वर्णोत्सत्ताविवायं णकारो हिरनुबध्यते ? एतज् ज्ञापयत्याचार्यो भवत्येका परिभाषा—व्याख्यानतो विशेषप्रतिपत्तिर्न हि सन्देहादलक्षणम् । अणुदित्सवर्णं परिहाय पूर्वणाणग्रहणं परेणाणग्रहणमिति व्याख्यास्यामः ।

Vaidyanātha quotes an ancient *kārikā* on this point :

परेणवेणग्रहाः सर्वे पूर्वणैवाणग्रहा मताः ।

ऋतेऽणुदित्सवर्णस्येतदेकं परेण तु ॥

Candra also introduces no change in this particular case but in his वृत्ति comments as follows :—

इणग्रहणानि सर्वाख्यनेन णकारेण, अणग्रहणानि तु पूर्वेण णकारेण ।

He has been able to do away with the exception in the case of अणुदित्सवर्णस्य चाप्रत्ययः as in his grammar there is no rule corresponding to the अण् portion of Pāṇini's rule.

Let us now see what will happen if the first ण् is omitted altogether and the first and second Śiva sūtras are combined into one, अण् occurs in the following rules :—

(1) उरण् रपरः, I. 1. 51.

(2) अणुदित्सवर्णस्य चाप्रत्ययः, I. 1. 69.

- (3) द्रलोपे पूर्वस्य दीर्घाऽणः, VI. 3. 11.
 (4) केऽणः, VII. 4. 13.
 (5) अणोऽप्रगृह्यस्यानुनासिकः, VIII. 4. 57.

In the first, second and fourth cases there will be no difference if we substitute अक् for अण्. The fourth is practically confined to the Vedas and so much latitude is allowed in the case of the Vedas that we may leave it out of account altogether. It is only in the case of द्रलोपे that अक् substituted for अणः will necessitate वृढः instead of दृढः but the difficulty can be easily met by adding the reservation अनुः (*i.e.*, not in the case of ऋ). As a matter of fact Vopadeva in his Mugdhabodha has combined three rules into one and for द्रलोपे पूर्वस्य दीर्घाऽणः and ढोढे लोपः and रोरि reads द्वोर्द्विर्वैश्वानुः.

2. The mention of ह twice.—On this point the Mahābhāṣya has the following comments :—सर्वे वर्णाः सक्तदुपदिष्टाः, अयं हकारो द्विरुपदिश्यते—पूर्वश्चैव परश्च । यदि पुनः पूर्वं एवोपदिश्येत पर एव वा । कश्चात् विशेषः ? हकारस्य परोपदेशेऽङ्ग्रहणेषु ह्यग्रहणम्.. उत्वे च...पूर्वोपदेशे कित्त्वक्त्वेऽङ्ग्रहणेषु भल्यग्रहणानि च...तस्मात् पूर्वश्चैवोपदेश्यः परश्च । यदि च किञ्चिदन्यत्राप्युपदेशे प्रयोजनमस्ति, तत्राप्युपदेशः कर्त्तव्यः ।

(Kielhorn, Vol. I, p. 27.)

The author of the Mugdhabodha with his characteristic penetration realised that it would be absurd to mention the same letter twice and consequently mentioned it only once in the प्रत्याहारसूत्र but he also was confronted with the same difficulty and had to formulate a separate rule, हो भस्, *i.e.*, ह is to be understood as being included in the pratyāhāra भस्.

Thus we see that it is not possible to avoid mentioning ह twice and that the fourteenth Śiva sūtra though treating of a single letter is indispensably necessary.

The whole argument is summed up in the following *kārikā*—

हकारो द्विरुपात्तोऽयमटि श्रुत्यपि वाञ्छता ।

अर्हेणाधुक्तदित्येतद् इयं सिद्धं भविष्यति ॥

3. The sūtra लण्.—It has been necessary to compose this new rule in order that ल may not be included in the pratyāhāra अट्. The pratyāhāra अट् is found in the following rules :—

- (1) आतोऽटि नित्यम् (VIII. 3. 3).
- (2) दोर्घादटि समानपादे (VIII. 3. 9).
- (3) अट्कुप्वाङ्नुम्व्यवायेऽपि (VIII. 4. 2).
- (4) श्छोऽटि (VIII. 4. 63).

Of these the first two refer to the Vedas and need not therefore detain us. The fourth would be improved by substituting अस्मि for अटि. There will be difficulty only in the case of the third, viz., अट्कुप्वाङ्नुम्व्यवायेऽपि which means that न् following र् (including र) and ष is to be changed into ण् even when the letters included in the pratyāhāra अट् and कवर्ग, etc., intervene. Here ल can be excluded only by means of the sūtra लण्.

The Mugdhabodha by its new method of the formation of pratyāhāra is enabled to effect a vast improvement in this case by reading अव for अट् and thus precluding not only ल but र also.

As has been already pointed out, Candra has combined the sūtras हयवरट् and लण् into हयवरलण् and has got over the difficulty in the case of श्छोऽटि by accepting the correction proposed by the Vārttikakāra and reading श्छोऽस्मि. The other difficulty he has solved very ingeniously. Pāṇini and others of his school mention the letters which might intervene between र or ष and न्. Candra following the Vārttika in his rule चुटुतुलशरव्यवाये (VI. 4. 132) mentions those letters which may *not* intervene and has thus no occasion to make use of the Pratyāhāra अट्.

4. The splitting up of the voiced aspirates into भभञ्ज and घटघञ्.—This has been done with a view to obtaining the

pratyāhāra यच् which is found in only one sūtra, *viz.*, अतो दीर्घा यञि and which is supplied by अनुवृत्ति to the next sūtra सुपि च. The two rules mean that the final अ of a stem is lengthened before the सार्वधातुक affixes and सुप् affixes beginning with any of the letters included in the pratyāhāra यच्. Now this lengthening takes place before म and व in the case of तिङ् terminations and भ, य and व in the case of सुप् terminations. Thus we see the use of the pratyāhāra here does not secure लाघव so far as the mental operations are concerned but rather involves गौरव. But since it is necessary to take म and व in the one case and य, व and भ in the other we cannot dispense with the anubandha ज. For if we read अतो दीर्घो यटि, भ will be excluded, and if on the other hand we read यणि, घ will be included and give rise to such undesirable forms as सेवाध्वे, असेवाध्वम्, etc.

It is possible, however, to avoid the anubandha ज and at the same time to secure लाघव in the mental operations by amending the rules thus: अतो दीर्घो मवोः and सुपि भे. In the case of रामाय there will be the आपक—कष्टाय क्रमणे.

The author of the Mugdhabodha has here, as elsewhere, brought his hard clear intellect to bear on the problem and effected a vast improvement by combining the two rules into his one rule: आत्तिमभवि which means before म, भ or व of the सुप् or तिङ् terminations, अ is changed into आ. As he has prescribed अय (and not simply य) for डे, रामाय, etc., present no difficulty.

5. The splitting up of the voiceless unaspirates into two—खफक्ठथचटतत् and कपय्.—This has been done to obtain a convenient pratyāhāra which would include क् ठ थ and च ट त for certain specific operations as the mutation of विसर्ग into स्. The pratyāhāra क्व् is found in only one rule of Pāṇini, *viz.*, नञ्व्यप्रशान् (VII. 3. 7) where क्व् is indispensable. One cannot help thinking that if an anubandha had been inserted after य, the phonetic character

of the voiceless aspirates would have been brought out and there would have been real **ह्रास्व** so far as mental operations are concerned in the case of those rules which concern themselves with aspirates only.

6. The change of the natural order of the nasal, etc.—The Sanskrit alphabet is based on strictly scientific principles. In the enumeration of the consonants of each group first of all we take the voiceless unaspirates, then the voiceless aspirates, then the voiced unaspirates, then the voiced aspirates and then the nasals in which there is a new nasal element. As regards the *vargas* again, the gutturals come first as being nearest to the pharynx, then the palatals, then the cerebrals, then the dentals and lastly the labials as being placed at the greatest distance from the pharynx. In the *Śiva sūtras* for the convenience of the formation of the *pratyāhāras* for grammatical operations this natural order has often been changed.

THE CRITICS OF SANSKRIT GRAMMAR

By

KSHITISH CHANDRA CHATTERJEE, M.A.

Pārthasārathi Miśra in his Śāstradīpikā sums up the charges against grammar in the following Kārikā :

निर्मूलत्वाद्भिगीतत्वान्नैष्यत्याद् वेदबाधनात् ।

पूर्वापरविरोधाच्च नास्य ग्रामाख्यसम्भवः ॥¹

No authority can possibly attach to grammar, for it has nothing authoritative as its basis, because its adherents themselves differ widely in their opinions and cast aspersions on each other, because it serves no useful purpose, because its teachings are in conflict with the Vedas and lastly because it is self-contradictory.

(1) Now as regards the first point. We derive all our knowledge of grammar from the writings of the three sages Pāṇini, Kātyāyana and Patañjali whence grammar is described as त्रिमुनि व्याकरणम्. But Pāṇini and others are human beings and as such cannot be regarded as free from the four defects—भ्रम (mistake), प्रमाद (carelessness), विप्रलिप्सा (desire to deceive) and करणापाटव (defect of the senses). Thus grammar being a product of the human brain must, in order that its authority may be established, be shown to be based on the Vedas, which it is not possible to do. No doubt we find mention of many technicalities of grammar, of शब्द and अपशब्द in the

¹ Kumārila also practically concludes his पूर्वपक्ष with these words :—

अतो विगानभूयिष्ठादिरुद्धान्मूलवर्जितात् ।

निष्फलाच्च व्यवस्थानं शब्दानां नानुशासनात् ॥

—Tantravārttika, Ānandāśrama ed., p. 274.

Vedas themselves. We find, for instance, such texts as “तस्माद् ब्राह्मणेन न ज्ञेच्छित्तवै” “ज्ञेच्छी ह वा एष यदपशब्दः” “एकः शब्दः सम्यक् प्रयुक्तः स्वर्गे लोके कामधुग् भवति” “आहिताग्निरपशब्दं प्रयुज्य प्रायश्चित्तीयां सारस्वतोमिष्टिं निर्वपेत्” “तस्माद् व्याकृता वागुच्यते,” etc. But these texts refer to the Prātiśākhya which deal exclusively with Vedic words and accents and have nothing to do with grammar in the sense in which we are considering it here.

Should you say that the science of grammar like the science of medicine is based on the usage of the Śiṣṭas or experts, we must ask you to define clearly what you mean by Śiṣṭa. Do you mean by Śiṣṭa those who use correct words like गो, etc., or those who use corrupt words like गावौ, etc., or those who use both? In the first case the vicious circle is inevitable, for grammar is based on the usage of the Śiṣṭas and Śiṣṭas are those who are versed in grammar. In the second case, it has to be admitted that coachmen and others who use such corrupt words as गावौ, etc., are Śiṣṭa and that grammar based on the usage of these coachmen¹ who habitually use corrupt words lays down rules for the formation of correct words—a statement which is self-contradictory.² In the third case it is difficult to conceive what useful purpose would be served by grammar which prescribes a heterogeneous mass of correct and corrupt words.³

¹ By the same brilliant process of reasoning a philosopher arrived at the following conclusion as to the origin of language : “The first men as yet speechless came together in order to invent speech, and to discuss the most appropriate names that should be given to the perceptions of the senses and the abstractions of the mind.”

² In the Mahābhāṣya, however, we find the tables turned on the grammarian who discovered an *apasabda* in the language of his charioteer (ed. Kielhorn, Vol. II, p. 557).

³ शिष्टप्रयोगमूला तर्हि व्याकरणसूत्रिस्तु दैवकस्मृतिरिवान्वयव्यतिरेकमूलिति चेत्, किं शिष्टा इति पृष्टो वक्तुमर्हसि किमभिमतगवादिषाधुशब्दव्यवहारिणो गाव्यापशब्दवादिनो ह्ये वा। आद्ये पक्षे दुरुत्तरमितरेतराशयत्वम्—शिष्टप्रयोगमूलं व्याकरणं व्याकरणविदश्च शिष्टा इति। न ह्यशिक्षितव्याकरणास्तु-संस्कृतगवादिप्रयोगकुशला भवन्ति। मध्यमपक्षे गाव्यादिव्यवहारिणः शाकटिकाः शिष्टाः, तत्प्रयोगमूलं गवादिशब्दसंस्कारकारि व्याकरणमिति व्याहृतमिव लक्ष्यते। तृतीये तु पक्षे गीगाव्यादिशब्दप्रयोगसाङ्ख्यात् किंफलं व्याकरणं भवेत्। —*Nyāyamañjarī*, pp. 410-11.

Siṣṭas such as the authors of the Kalpa-sūtras, Smṛti-texts, Mīmāṃsā and Gṛhya-sūtras have been found to use any number of "incorrect" words. The nom. neut. sing. of इतर is not इतरम् but इतरत् (ending in 't')—a form found in such sentences as समानमितरच्चेनेन yet Maṣaka in various places uses such incorrect expressions as समानमितरं ज्योतिष्टोमेन and the author (of the Chāndogya-sūtras) himself has said : समानमितरं गवैकाहिकेन. According to Pāṇini's rule स्वरितजितः कर्दभिप्राये क्रियाफले (I. 3. 72) a root with an indicatory svarita vowel or a root with an indicatory ज् takes the Ātmanepada when the benefit of the action accrues to the agent, yet in the text बह्विष्यवमानैः सदसि सुवीरन् where the nom. to सुवीरन् is three priests and where, consequently, the benefit of the action does not accrue to the agent (the merit arising from the performance of the sacrifice going to the यजमान) and thus where we should expect Parasmaipada as in the sentence यजन्ति याजकाः Ātmanepada has been used regardless of grammar. Similarly in the sūtra प्रत्यसित्वा प्रायश्चित्तं न जुहुयुः Āśvalāyana has not used ल्यप् in प्रत्यसित्वा though it is a compound in direct violation of Pāṇini's rule : समासेऽनजपूर्वं क्तो ल्यप् (VII. 1. 37). In आज्येनाक्षिणी आज्य on the other hand, ल्यप् has been used in आज्य even though it is not a compound. Similarly in his work on Śikṣā, Nārada writes प्रत्युषे ब्रह्म चिन्तयेत्¹ where the expression प्रत्युषे is on a par with words like गावी, etc. Similarly in the line ज्ञातारः सन्ति मेल्युक्ता [VIII. 56] where we should expect ज्ञातारः सन्ति म इत्युक्ता Manu has joined मे इत्युक्ता into Sandhi regardless of the doctrines of grammar. Similarly in the Mīmāṃsā-sūtra गव्यस्य च तदादिषु (I. 1. 18) the word गव्य which can be correctly used only in the sense of गोर्विकारः or गोरवयवः has been used in quite a different sense, viz., गवामयन. Similarly in the sūtra द्वावोस्तथेति चेत् (J. S., IX. 3. 18) instead of saying द्वावाष्टविभ्योः, द्वावोः has been used against all canons of grammar. Similarly the author of the Gṛhya-sūtras has made

¹ In the printed text the reading is उषसि ब्रह्म चिन्तयेत् (II. 8. 1).

use of the expression **सूर्यन्यभिजिघ्राणम्** where he should have said **सूर्यन्यभिघ्राणम्**, the substitute **जिघ्र** (for **घ्रा**) being out of place, for Pāṇini in his rule “**पात्राधा—**” (VII. 3. 78) distinctly lays down that **जिघ्र** is to be substituted for **घ्रा** only before **सार्वधातुक** affixes and **लुट्**, as every schoolboy knows, is an **आधधातुक** affix. Even in the Nirukta which is the complement of grammar there are many uses which do not conform to the rules of grammar, such as **ब्राह्मणो ब्रवणात्** (Brāhmaṇa is so called because he speaks). While stating the derivative meaning of the word Brāhmaṇa as applied to the frogs in the stanza **संवत्सरं शाशयानाः**, Yāska with a view to show that this particular application of the word Brāhmaṇa is due to their habit of speaking, uses the word **ब्रवण** instead of substituting **वच्** for **ब्रू** according to Pāṇini's rule **ब्रुवो वचिः** (II. 4. 53) and saying **वचन**. [In the printed texts of the Nirukta, however, we find **ब्राह्मणा व्रतचारिणोऽब्रुवाणाः**.]¹

1

कल्पसूत्रवृत्तिग्रन्थमीमांसागृह्यकारिणः ।

शिष्टा दृष्टाः प्रयुज्जाना अपशब्दाननैकशः ॥

यथा “समानमितरच्छेदेन” इत्यादि-तकारान्त-प्रथमान्त-नपुंसकप्रयोगेषु मशकेन तव तव प्रयुक्तम्—“समानमितरं व्यतिष्टीमेन” । “समानमितरं गवा ऐकाहिकेन” इति सूत्रकारेणाम्यभिहितम् । अह्नौने “बहिष्पवमानैः सदसि स्तुवीरन्” इति कर्त्तृभिर्प्रायस्त्रियाफलवर्जितेऽप्युत्प्लवर्तके स्वने “यजन्ति याजकाः” इतिवत् परस्मैपदे प्रयोक्तव्ये व्याकरणमनपेक्ष्यात्मनेपदं प्रयुक्तम् । तथाश्चलायनेन “प्रत्यसित्वा प्रायश्चित्तं जुहुयुः” इति समासेऽपि ल्यम् न प्रयुक्तः । तथा शिखायां नारदेन [२।८।१]—“प्रत्यूषे ब्रह्म चिन्तयेत्” इति गाय्त्रादि-शब्दतुल्य एव प्रयुक्तः । तथा मनुनापि “ज्ञातारः सन्ति सेतुरात्मा” [मनु ८।५।६] इत्येव ज्ञातारः सन्ति न इत्युक्तेति वक्तव्ये व्याकरणमनपेक्ष्यैव संहिता कृता । तथा मीमांसायामपि “गन्धस्य च तदादिषु” [जै. सू. १।१।१८] इति गोर्दिंकारावयवयोग्यसाधुप्रयोगः शब्देऽन्यत्रैव गवामयने प्रयुक्तः । तथा “द्यावोक्षधेति चेत्” [जै. सू. ८।१।१८] इति द्यावापृथिव्योरिति वक्तव्ये लक्षणहीनमेव बहु प्रयुक्तम् । तथा गृह्यकारेण सूर्यन्यभिजिघ्राणमिति वक्तव्ये सूर्यन्यभिजिघ्राणमित्यविषये जिघ्रादेशः प्रयुक्तः । कार्तृक्षेऽपि व्याकरणस्य निरुक्ते हीनलक्षणे प्रयोगा बहुवो यद्द ब्राह्मणो ब्रवणादिति [नि. ८।६।१] । संवत्सरं शाशयानाः [ऋ. सं. ७।१०।३।१] इत्येतन्मन्त्रगतमण्डूकविषयब्राह्मणशब्दनिर्दिचने क्रियमाणे वचनशीलत्वनिमित्ततां दर्शयता ब्रुवो वविरिति वचादिशसकत्वैव ब्रवणादिति प्रयुक्तम् ।

अन्तो नाख्यपशब्दानामितिहासपुराणयोः ।

तथोभाभ्यादिरूपाणां हसिशिखादिकारिणाम् ॥ —T. V., p. 259.

There is no end of incorrect words in itihāsas and purāṇas. We also find words like उभाभ्यम्, etc., used by the author of works like the Hastiśikṣā.

Vālmiki, for example, uses such an expression as तदनन्तरं तुभ्यं च राघवस्य च and Dvaipāyana such a sentence as जन्मे जन्मे यदभ्यस्तम्.¹ In sentences like युगपदुभाभ्यां दन्ताभ्यां यः प्रहारः स उभाभ्यः, etc., words have been used by Palakāpya, Rājaputra and others regardless of grammar.²

Nor can Grammar be held authoritative because it is generally recognised as a वेदाङ्ग for, according to us, it is not शिक्षा, कल्प, etc., that constitute the six Vedāṅgas but the group of six, viz., श्रुति, लिङ्ग, etc. Or if this does not satisfy you, if you insist on the generally accepted enumeration of the six Vedāṅgas in which grammar is included, even then we have no objection, but grammar must be held to mean not grammar in general but the grammatical speculations scattered in Vedic literature or the Prātiśākhya. The text तस्माद् ब्राह्मणेन निष्कारणं षडङ्गे वेदोऽध्येयो ज्ञेयश्च may refer to either of these two.

Thus we find the science of grammar is not based on solid granite but on heaps of sand.

(2) Now we come to the next point.³ It is well-known that Sanskrit grammar is based on the sūtras of Pāṇini, the vārtikas⁴ of Kātyāyana which explain, criticise and supplement the rules of Pāṇini, and the Bhāṣya of Patañjali which explains the rules of Pāṇini and Kātyāyana and often severely criticises the latter. Of these three Patañjali is regarded as more authoritative than the two other sages, as

¹ “तदनन्तरं तुभ्यं च राघवस्य च” इति वाल्मीकिना, “जन्मे जन्मे यदभ्यस्तम्” इति द्वैपायनेन प्रयुक्तम्।—N. M., p. 414.

² “युगपदुभाभ्यां दन्ताभ्यां यः प्रहारः स उभाभ्यः” इति सर्वैः पालकाप्यराजपुत्रादिभिर्न्याकरणानपेक्षेन प्रयुक्तम्।—T. V. p. 259.

³ For the sake of convenience, the second and fifth points have been taken up together.

⁴ उक्तानुक्तदुरुक्तार्थव्यक्तिकारि तु वार्तिकम्।

he, coming much later than they, had an opportunity of observing a much greater number of actual forms.¹ Kaiyaṣa says (on II. 4. 26) मुनिद्वयाच्च भाष्यकारः प्रमाणतरमधिकलक्ष्यदर्शित्वात्. Bhaṭṭoji also remarks in his Praudhamanoramā on यङो वा (VII. 3. 94)—यत्तु प्राचीनं “धातुग्रहणं यङ्लुकि वा” इति केचिदिति, नैतत् त्रिमुनिमतमित्युपेक्षितम्। अर्वाचीनमतानामेव गतिः। किं बहुना काशकृत्स्नादिमतानामपि मुनित्रयविरोध इदानीमग्रहणमेव। एतच्च कैयट-हरदत्तादिग्रन्थे स्पष्टम्। मुनित्रयमध्येऽपि यथोत्तरप्रामाण्यमाश्रित्य भाष्यानुरोधेनैव व्यवस्था इति तत्त्वम्। एतच्च भर्तृहरि-कैयट-हरदत्तादि-सकलसम्मतम्।

Now these three sages often differ from one another. Kātyāyana is openly hostile to Pāṇini. He subjects the rules of Pāṇini to a rigorous test, finds many of them wanting, rejects some of them and suggests supplementary rules to remedy the defects of others. His rules often end with इति वाच्यम् or इति वक्तव्यम् meaning that Pāṇini ought to have said this but has not said.

The Bhāṣyakāra professes the highest regard for Pāṇini, thinks his rules perfection itself, says at the beginning of his treatise: प्रमाणभूत आचार्यो दर्भपवित्रपाणिः शुचाववकाशे प्राङ्मुख उपविश्य महता यत्नेन सूत्रं प्रणयति तत्राशक्यं वर्णेनाप्यनर्थकेन भवितुं किं पुनरियता सूत्रेण। (ed. Kielhorn, Vol. I, p. 39) and further on (under Pāṇini, VI. 1. 77)—

नित्ये यः शाकलभाक् समासे तदर्थमेतद् भगवांश्चकार।

सामर्थ्ययोगान्न हि किञ्चिदस्मिन् पश्यामि शास्त्रे यदनर्थकं स्यात् ॥

yet he takes all sorts of liberties with the rules of Pāṇini, sometimes rejects them wholesale (as the seven rules in the अपादान section), sometimes goes out of his way to change

¹ यद्विष्णुतमदृष्टं वा सूत्रकारिण तत् स्फुटम्।

वाक्यकारो ब्रवीत्येव तेनादृष्टञ्च भाष्यकृत् ॥

them (as in उपसर्गादनोत्परः, VIII. 4. 28, which he changes to उपसर्गाद् बहुलम्), splits up single rules of Pāṇini into two—one part prescriptive and the other merely illustrative (as in the case of समानस्यच्छन्दस्यमूर्ध्वप्रभृत्युदकोषु, VI. 3. 84, etc.), sometimes charges Pāṇini with carelessness as when he speaks of the repetition of तद् in तदधीति तद्दे (IV. 2. 59) as प्रमादकृतमाचार्यस्य and so on, and turns and twists the rules of Pāṇini in all conceivable ways. Sometimes he raises objections which he cannot solve; like the Frankenstein monster they prove too strong for him. Let us take some more concrete examples.

It has been pointed out that in the very first rule of Pāṇini the canons of both grammar and rhetoric have been violated. The rule is वृद्धिरादैच् meaning आ, ऐ and औ are to be known as वृद्धि vowels. Now it is a commonplace of grammar and rhetoric that of the subject and the predicate, since the subject is more or less known to us and the predicate supplies some new information about the subject, it is the subject that is to be placed first, for we always find it easy to pass from the known to the unknown. The violation of this rule constitutes the defect known as विधेयाविमर्श.¹ In the rule वृद्धिरादैच् the predicate वृद्धि ought to have been placed after आदैच् just as Pāṇini himself says अदेङ् गुणः. Patañjali points out the defect and apologises for Pāṇini—इदमेकमाचार्यस्य मङ्गलार्थं सृष्टताम् । माङ्गलिक आचार्या महतः शास्त्रौघस्य मङ्गलार्थं वृद्धि-शब्दमादितः प्रयुङ्क्ते । मङ्गलादीनि हि शास्त्राणि प्रयन्ते वीरपुरुषाणि भवन्त्यायुषतृप्पुरुषकाणि च, अध्येतारश्च वृद्धियुक्ता यथा स्युः । (ed. Kielhorn, Vol. I, p. 40).

This apology is lame and completely breaks down in the case of the rule अपृक्त एकाल्प्रत्ययः (I. 2. 41) where commentators are forced to admit, the inversion of the order of the subject

¹ The commentator of the व्यक्तिविवेक (Trivandrum ed., pp. 15-16) tries to show that there are indications in the writings of Pāṇini, Kātyāyana and Patañjali about many of the rhetorical defects.

The non-mutation of the final palatal into the corresponding guttural is the other defect in this rule. This also Patañjali explains away with the help of a rule applicable only to the Vedas for according to him **छन्दोवत् सूत्राणि भवन्ति** (ed. Kielhorn, Vol. I, p. 37, l. 4).

परस्परेण चाचार्या विगीतवचनाः स्थिताः

—Tantravārttika, Ānandāśrama ed., p. 246.

३ निल्यो ह्यस्य नशब्दस्य सुवन्तसम्बन्धेन समास इति वार्तिककारो भगवान् कात्यायनो मन्यते स वाचनानर्थक्यस्य स्वभावसिद्धत्वाद् [२।१।१।२ वा] इति । नेति भगवान् पाणिनिः । स हि “विभाषा” [२।१।११] इति प्रकृत्य ईदृशं समासमुक्तवान् । सहादित्वाच्च पाणिनेर्वचनं प्रमाणम् असहादित्वान्न कात्यायनस्य । असहादी हि विद्यमानमप्यनुपलभ्य ब्रूयात् ।—Sabara on J. S., X. 8. 4.

“यत् पाणिनिना प्रोक्तम् इन्विभवतिव्याञ्च [१।१।६] कर्मवत् कर्मणा तुल्यक्रियः [३।१।८७], तत् कालायनी दूषयति इत्येष्कुन्दोविषयत्वाद्वा, वो लुकी नित्यत्वाच्चां लिटः किञ्चनानर्थक्यं सिद्धे तु प्राप्तवकर्मत्वात्।”
तैत्तिरीयसंहिताभाष्ये [१।१।१] सायणाचार्याः।

Further, according to Patañjali those words are to be regarded as correct the precise meanings of which may be easily ascertained from the practice of experts and which have been in use in these particular senses from time immemorial. And what do we find in Pāṇini? ¹ From the beginning to the end his work abounds with words and expressions like टि, वु, भ, etc., which were never in use before his time and which must consequently be regarded as 'apaśabdas.' A strange sight this—the work of an exponent of correct words bristling with incorrect words!

What is stranger still is that Pāṇini himself has violated his own rules at almost every step. Take for instance such a simple rule as जनिकर्तुः प्रकृतिः (I. 4. 30). In this rule the word जनिकर्तुः may well be regarded as an instance of the maximum of error in the minimum of space. According to the dictum “इक्षतिषौ धातुनिर्देशे,” (III. 3. 198.2) इक् has been tagged on to जन् to indicate that the writer is speaking of the root जन्. The sūtra does not certainly prescribe ablative ending for the producer of the root. The word जनि has here evidently been used in the sense of “the act of being born”—a meaning which it can never have according to the rules of grammar. Further the rule ढजकाभ्यां कर्तरि (II. 2. 15) forbids the compounding of an objective genitive with a word ending in the agent suffix ढच् or अक्.² Pāṇini has gone out of his way to compound जनि with कर्तुः and thereby violated one of his own rules. He has

¹ अनादिमिद्धे ऽभियुक्तव्यवहारि गृहीतसङ्गतिका गवादिशब्दा एव साधव इति भगवतः पतञ्जलिर्मतम् । पाणिनिस्तु शास्त्रस्यामूलचूङ् तद्विपरीतानेव शब्दाङ्गणौ । “अइलण्,” “वेर्ङिति,” “सोःशुना षः,” “ट्ना टुः,” इत्यादिप्रयोगफलात् ।—Sāyana on Taittiriya Samhitā, 1.1.1.

याच्येताः खे च्छया संज्ञाः क्रियन्ते टिबुभादयः ।

कथं नु तासां साधुलं नैव ताः साधवो मताः ॥—पदमञ्जरी ।

² Another provision of this rule has been violated in तत्प्रयोजको हेतुश्च—Pāṇini, I. 4. 55.

violated another rule of his, *viz.*, गमहनजनखनघसां लोपः कडित्यनडि (VI. 4. 64) by not dropping the vowel of the root जन् and changing न् into ज्.

Then again Pāṇini uses the expression संज्ञाप्रमाणत्वात् (I. 2. 35) where the समास in संज्ञाप्रमाणत्व is absolutely indefensible for he himself has forbidden such compounds in his rule प्रूरणगुण .. (II. 2. 11). In this instance his noble example has been followed even by his commentator and critic Kātyāyana who constantly uses such expressions as दन्तेर्हृत्प्रहणस्य जातिवाचकत्वात् सिद्धम् (११२१०११), आन्यभाष्यं तु कालशब्दव्यवायात् (११२१११), etc.

Then again he frames the rules लक्षणहेत्वोः क्रियायाः (III. 2. 126) and समुद्राभ्नाद् घः (IV. 4. 118) in direct violation of his own teaching अल्पाच्तरम् (II. 2. 3), *i.e.*, in a Dvandva compound, a word with a smaller number of vowels is to precede.

Then again he has his rules समां समां विजायते (V. 2. 12) and बन्धुनि बहुव्रीहौ (VI. 1. 14) in direct violation of all known canons of number and gender, for बन्धु substantive is never neuter and समा is always plural. In the rule ग्रीवाभ्योऽण् (IV. 3. 57) it is difficult to understand why he uses the plural number.

Many of his rules are ambiguous—and ambiguity is the one fault a sūtra should not labour under. In the case of his use of the pratyāhāras अण् and इण् we do not know whether he intends the first or the second ण्.

The writings of Kātyāyana are also full of such ungrammatical words as शाश्वत, etc.

And Patañjali does not lag behind his two masters in his use of incorrect words and expressions. In अविरविकन्यायेन grammar requires that the first component of the compound should drop its विभक्ति. In अन्यथा कृत्वा चोदितमन्यथा कृत्वा परिहारः the rule अन्यथैवकथमित्यंशु सिद्धाप्रयोगश्चेत् III. 4. 27 requires the addition of शसुल्. Then again such expressions as शिवभागवत, शक्यज्ञानेन खमांसादिभिरपि कृत् प्रतिहन्तुम्, etc., clearly

violate the fundamental rules of grammar. शब्दानां शब्दपारायणम् is manifestly tautologous.¹

Let us now examine in some detail the first few lines of the great commentary of this highest authority on grammar. He begins his book with the sentence अथ शब्दानुशासनम्. Critics have taken exception to the compound शब्दानुशासनम् on the ground that a compound with the objective genitive in such cases is barred by the rule कर्मणि च (II. 2. 14). He then asks केषां शब्दानाम् ? This शब्दानाम् cannot refer to the word शब्द in the compound शब्दानुशासनम् for the simple reason that it is a subordinate member of a compound.² Then again Patañjali's

¹

येऽपि व्याकरणस्यैव परे पारे प्रतिष्ठिताः ।

सुतरां तेऽपि शाब्दादितुल्यानिव प्रयुज्यते ॥

सूत्रवार्तिकभाष्येषु दृश्यते सप्तशब्दनम् ।

अत्रारूढाः कथं चात्रान् विस्मरयुः सचेतसः ॥

सूत्रे तावत् “जनिकर्तुः प्रकृतिः” [१।४।३०] इत्यत्र हि दावपशब्दी । जनिशब्देन हि “इक्षुत्पिपौ धातुनिर्देशे” [१।३।१८८] इत्यनेन लक्षणेनान्वितो धातुरेव निर्दिश्यते । न च तस्य कर्तुः प्रकृतेरपादानसंज्ञेयते । जायमानस्य पुनरर्थस्य जनिशब्दी वाचकतया नैव लक्षणेनानुगतः । तेनायं दरिद्र इवाश्वशब्दो जनिमात्रवाचित्वात् तदर्थं प्रत्यसाधुरेव विज्ञायते । तथाच “तजकास्यां कर्तरि” [२।२।१५] इति प्रतिषिद्धषष्ठीसमासप्रयोगाद् व्याकरणफलपरित्यागः । एवं “तत्प्रयोगक—” [१।३।५५] इति प्रतिषिद्ध एव समासः— तथा वार्तिकेऽपि “दम्भेर्लुप्यहणस्य जातिवाचकत्वात् सिद्धम्” [१।२।१०।१] इति, तथा “आन्यभाष्यं तु कालशब्दस्यवायात्” [१।१।२।११] इति । अत्र क्लेशेन समासं कल्पयित्वा ततः समाससंज्ञायां बाधितायां “गुणवचनब्राह्मणादिभ्यः—” [५।१।१।२४] इति लक्षणेनासंसृष्ट एव ध्वज् प्रयुक्तः । भाष्येऽप्यविरविकन्यायेनेति [४।१।८८] इत्यर्थे तत्पुरुषे पूर्वसमासपूर्वपदस्थायाः सुपः “सुपो धातुप्रातिपदिकयोः” [२।४।७१] इति प्रत्यक्षोपदिष्टोऽपि लुङ् न कृतः । “तथा अन्यथा कृत्वा चोदितम् अन्यथा कृत्वा परिहारः” इति “अन्यथैवंकथम्—” [३।४।२७] इत्यन्वाख्यतसाधुलोऽपि णसुल् न प्रयुक्तः ।—T. V., p. 260. See also N. M., p. 413, ll. 18 ff.

² यदपि च “केषां शब्दानाम्” इति प्रश्नानन्तरं “लौकिकानां वैदिकानां च” इति विवेककथनं तदपि बहूनां तावत् प्रत्यक्षप्रत्यभिज्ञानालोकवेद्योरभेदे सति स्लोकविभागापेक्षम्, नैवेदमत्यन्तभेदाग्रयसदृशमभिधीयमानं शोभते, न च लौकिकमस्यै गौरवः पुरुषो हस्तीत्येवमादयः सर्वे वेदसाधारणा वेदादेव बोद्धव्य लोकेन प्रयुक्ता उदाहृतुं न्याय्याः । य एव हि भाषायामित्येव स्मर्यन्ते, न च कचिदपि वेदे दृष्टपूर्वा इत्येवं सम्भावयितुं शक्यन्ते त एवोदाहर्तव्याः । वैदिकोदाहरणेष्वपि च लोकप्रसिद्धा एव शमादय उदाहृताः । न च वाक्योदाहरणेन लौकिकेभ्यो भिद्यन्ते । वाक्यानां व्याकरणेनान्वान्वाख्यानात् । अतस्कान्दसायनेव कानिचित् “गृभूषामि” “दत्वायाथ” इत्येवमादीन्युदाहर्तुं योग्यानि न “शं नो देवीः” इत्येवमादीनि ।—T. V., p. 261.

division of words into two classes 'laukika' and 'vaidika' is not correct as most of the words and forms current in the language are common to both Vedic and classical Sanskrit, the only distinction between them consisting in the abandonment by the latter of many superfluous Vedic expressions. Further instead of adducing गौः, अश्वः, पुरुषः, हस्ती, etc., as instances of लौकिक words, he should have mentioned some words or grammatical forms which are peculiar to classical Sanskrit and which have been described by ancient grammarians as occurring in the bhāṣā only. As instances of Vedic words Patañjali mentions शन्नो देवोरभिष्टये, etc.—words which are also of frequent occurrence in classical Sanskrit whereas he should have mentioned गृभ्णामि, दत्वाय, etc., which are purely Vedic. It cannot be urged, in his defence, that these are sentences, not words, and as such differ in their very nature from classical Sanskrit where the order of words is free, whereas the order of words is fixed and immutable in the Vedas, for, the order of words in popular speech also is fixed in many cases as इन्द्राग्नी, पितापुत्री, etc., and secondly grammar lays down rules for words only and has nothing to do with sentences. Then again strictly speaking it is गावो, गोषी, etc., that are लौकिक शब्दs and not गौ and it is these words that ought to be explained in grammar, for can you point out a single person who even though versed in the Vedas, even though conversant with the text 'one should use correct words only,' even though devoted to the practice of virtuous conduct, even though of refined intellect, even though averse to the practices prohibited in the Śāstras, even though a Brāhmaṇa learned in the Vedas, uses correct words only ?¹ And their examples have been followed by later writers on grammar.

¹ यदि च लौकिकानामन्वाख्यानं क्रियेत, ततः सुतरां गाव्यादय एवान्वाख्येयास्तेषां व्यवस्थितं लौकिकत्वं वेदेष्वप्रयोगात् ।—T. V., p. 26. अपि च सत्यपि व्याकरणाधिगमि श्रुतेऽपि साधुभिर्भाषितव्यमित्युपदेशे सत्यं वदत वेदार्थानुष्ठानपरायणोऽपि कृतबुद्धिरपि निषिद्धानुष्ठानपराश्च खोऽपि ओत्रियोऽपि श्रद्धधानोऽपि यदि कश्चित् केवलैः साधुभिरेव शब्दैर्व्यवहरन् दृष्टः ।—N. M., p. 406.

Bhaṭṭi wrote an epic poem to illustrate the rules of grammar and the very first word that he composed is grammatically indefensible. In the line अभूतृपो विबुधसखः परन्तपः, अभूत् should have been बभूव for the king lived long long ago and was beyond the range of vision of the poet (राज्ञश्चिरातीतत्वात्, कवेः परोक्षत्वाच्च). At the beginning of his प्रदीप on the महाभाष्य Kaiyata writes भाष्याब्धिः क्वातिगम्भीरः where the epithet अतिगम्भीरः vitiates the compound भाष्याब्धिः for according to the rule उपमितं व्याघ्रादिभिः सामान्याप्रयोगे (II. 1. 56.) an object of comparison is compounded with words like व्याघ्र, etc., provided the common quality is not stated in words. Kārttikeya Siddhānta begins his commentary ¹ on the Mugdhabodha thus :—

यद्यहं श्रीकार्तिकेयो मन्दबुद्धिस्तथापि च ।
 पूर्वकोविदपन्यानमवलम्ब्याचिकीर्षिषम् ॥
 धीरा वः प्राञ्जलिर्याचे वरमेकं पदानतः ।
 यदर्थं यस्य सञ्चिन्त्य तस्य कार्या परिष्क्रिया ॥

Here पूर्वकोविदपन्यानम् ought to be पथम् for पथिन् at the end of a compound is changed into पथ and वः in the third line ought to be युष्मान् for these enclitics cannot be used at the beginning of a sentence nor immediately after a vocative which begins the sentence. Similarly Bhaṭṭoji while explaining the rule हलोऽनन्तराः संयोगः (I. 1. 7) writes अज्भिरव्यवहिताः. Here अज्भिः is a grammatical blunder, it should have been अग्भिः. No doubt ग might lead to confusion with the instrumental plural of अक्. Bhaṭṭoji should therefore have written स्वरैः. As Nāgeśa says : अत्र कुलं न्याय्यम् । अतएव हयवरसूत्रे “अचोऽस्तु” इति भाष्यप्रयोगे कुलं दृश्यते । स्वरैरव्यवहिता इति तूचिता वृत्तिः. The same remark applies to अचसन्धि and अनुस्वारस्याप्यचत्वात्.

As a matter of fact some curse seems to be connected with the study of grammar. Just as in our Catuspāthīs when students are lectured on the शुद्धितत्त्व (which prescribes the

period of mourning in the case of death of one's kin) some bereavement to either teacher or pupil is inevitable, just as when lessons are given on the व्यधिकरण section of Nyāya dealing with अभाव, some calamity is sure to befall the scholars or their teacher, similarly lessons on grammar are sure to impair the mental efficiency of the teacher and the taught. It has been said :

वृत्तिः सूत्रं तिला माषाः कपत्री कीदृबोदनः ।

अजडाय प्रदातव्यं जडोक्तिरमुत्तमम् ॥—N. M., p. 418.

(3) As for the utility of the science of Grammar.

Grammar serves no useful purpose for the very simple reason that Pāṇini who may be regarded as the father of this science has not stated any.

In the case of Mīmāṃsā and allied sciences the authors themselves have stated in no ambiguous terms the utility of the study of these particular sciences. It cannot be said that the purpose of the study of grammar is too well-known to be stated, for how can it be well-known when we with all our efforts cannot discover it and when no two men agree on what it is.¹ Of the four ends of human existence—virtue, wealth, love and salvation—not one can be said to be promoted by the study of grammar. Religious merit accrues from the performance of sacrifices, making of gifts, speaking the truth, offering oblations to the fire and so on and we learn about these not from grammar but from Vedic injunctions, from the Smṛtis of Manu, Yājñavalkya and others, from the practice of the pious and

¹

न तावत् स्वकारिण किञ्चिदुक्तं प्रयोजनम् ।

कथं चैतावति ग्रन्थे स्यात् प्रयोजनविस्तृतिः ॥—T. V., p. 256.

अतश्च निष्प्रयोजनं व्याकरणम्, तत्स्वकृता स्वयं प्रयोजनस्यानुकृतात् । न ह्यथातो धर्मजिज्ञासा प्रमाणादिज्ञानात् साधर्मादिज्ञानाद्वा निःश्रेयसावगमः इतिवत् तच्च स्वकारः प्रयोजनं प्रत्यपीपदत् । सुज्ञानत्वाच्च प्रत्यपादयदिति चेत् किमुच्यते सुज्ञानत्वं यदद्यापि निपुणमन्त्रे षमाणा अपि न विद्मः, यत्र चाद्यापि सर्वे विवदन्ते ।

—N. M., p. 411.

from the epics and Purāṇas. It is well-known that economics and politics teach one the best means of acquiring wealth and not grammar, for we find scholars well-versed in grammar suffering the pangs of poverty throughout their lives. Success in love may be secured by a study of Vātsyāyana's Kāmaśāstra. It is absurd to suppose that a repetition of टिड्ढणञ्, etc., and a knowledge of the distinction between dental 'n' and cerebral 'ṇ' will raise a man's worth in the eyes of his beloved. And lastly self-knowledge has been held to be the means of attaining salvation and not grammatical rules. As Śaṅkarācārya says प्राप्ते सान्निहितेऽत्र मरणे न हि न हि रक्षति दुःखञ् करणे. When death which is always near us comes, grammatical aphorisms like दुःखञ् करणे cannot save us.¹

Kātyāyana after racking his brains to find out the purposes served by grammar mentions the following :—(i) the preservation of the Vedas, (ii) जह्, (iii) आगम, (iv) simplicity and (v) absence of doubt.

(i) The preservation of the Vedas. It is not knowledge of grammar but connexion with the preceptor that helps in the preservation of the Vedas. The preceptor gives lessons on the Vedas and as soon as the pupil while repeating the lessons makes the slightest deviation in pronunciation or accentuation his fellow pupils at once comes down upon him and by rebukes,

¹ धर्माधिकामाश्रयारः पुरुषार्थाः, तेषामन्यतमः किल व्याकरणस्य प्रयोजनमाशङ्क्यत। तत्र न तावद्धर्मस्य प्रयोजनम्, स हि यागदानहोमादिस्वभावस्तज्जनितसंस्कारापूर्वरूपो वा वेदादिवावगम्यते—चोदनेव धर्मे प्रमाणमिति तद्विदः। चोदनामूलमन्वादिस्मृतिसदाचरणेतिहासगम्यो वा कामं भवतु। व्याकरणस्य तु स्वतस्तदुपदेशसामर्थ्यासम्भवाद् अङ्गस्वभावाख्यातत्वाच्च न तत्प्रयोजनता युक्ता। प्रयोगनियमहारकस्तु धर्मस्य प्रयोजनतया निरस्त एव। अर्थप्रयोजनता वार्तादण्डनीत्योः प्रसिद्धा न व्याकरणस्य, अधीतव्याकरणा अपि दरिद्राः प्रायशो दृश्यन्ते, न तस्यार्थः प्रयोजनम्। कामस्तु वात्स्यायनप्रणीतकामशास्त्रप्रयोजनतामुपगतो न व्याकरणसाध्यतां स्पृशति, सोचे तु हारमात्मादिपरिज्ञानमाचक्षते क्लेशप्रहरणं चाध्यात्मविदः ध्वनयन्परिज्ञानं पुनरपवर्गसाधनमिति न साधूयान् वादः। तदेवं धर्मादिचतुर्दैर्गादिकोऽपि न व्याकरणसाध्य इति स्थितम्।

ridicule and repeated instructions make him properly recite the Vedas.¹

(ii) Ūha. In the books dealing with sacrifices all the sacrifices are not treated in detail, one sacrifice of each class is dealt with in detail (this is known as प्रकृति) and only the variations in the case of the others of that type mentioned. These are known as विकृतis. In certain cases, in the विकृतियाग्स the विभक्ति, etc., have to be changed. Kātyāyana and Patañjali are of opinion that one cannot make the necessary changes in the case of the विकृति sacrifices unless he is conversant with grammar. This also is not true. Ūhas may relate to mantras, sāmans and संस्कार (different modes of purification). Grammar cannot possibly have anything to do with the last variety, and as for the first two the practice of the याज्ञिकs or those versed in sacrificial lore will be enough to instruct us in the changes to be introduced. So grammar is superfluous.

(iii) Vedic Texts. There is the Vedic text ब्राह्मणेन निष्कारणो धर्मः षडङ्गो वेदोऽध्येयो ज्ञेयश्च which means a Brāhmaṇa should study धर्मः, i.e., the Veda with the six āngas or subsidiary studies and understand them and of the six āngas grammar is the most important.

We have already dealt with the text and shown how षडङ्ग here means the group of six—श्रुति, लिंग, etc., and how even supposing it to refer to शिक्षा, etc., व्याकरण as included in the group of six refers either to the grammatical speculations in Vedic literature or to the Pratiśākhys.

It may be pointed out in this connection that it is absurd to say that the text ब्राह्मणेन, etc., shows one of the purposes of the study of the Vedas. It would be more correct to

¹ सहाध्यायिभिरैवातो वेदः कार्त्तुं कर्त्तुं रच्यते

स्वराक्षरविनष्टोऽपि द्वादन्येन सृष्यते ॥

तस्मात् प्रीतैरुपाध्यायैर्हि ष्टैः कारुणिकादिभिः ।

न विनाशयितुं वेदो लभ्यते तेन रच्यते ॥—T.V., p. 262.

say the text tells of the reason why we should study the Vedas.

(iv) Simplicity. It is absurd to speak of grammar as the simplest means of acquiring a knowledge of words when it is common experience that even after years of patient labour one fails to master the science. One feels inclined to suspect that what the Vārttikakāra meant was गौरव or cumbersome means and has euphemistically used the word लाघव (by what is known as विपरीतलक्षणा).¹

(v) Removal of doubts. It has been said that when a doubt arises as to the meaning of certain words and expressions a knowledge of grammar helps us to take into account the accents, etc., and to determine the correct meaning. This is hardly correct, for it is well-known the various doubts that every sentence gives rise to are dispelled not by grammar but by Mīmāṃsā.² Grammar deals with words only, whereas Mīmāṃsa deals with words as well as sentences. When we

¹ लाघवं तु किमुच्यते वाच्यात् प्रच्यति बहुषु बहुत्वस्यपि वत्सरेषु यन्नाधिगन्तुं शक्यते व्याकरणं स चेन्नसुखायः कोऽन्यस्ततो गुरुर्भविष्यति।—N. M., p. 412.

यदि वा गौरवस्यैव लघुत्वमुपचर्यते ।

विपर्ययापदेशेन शरैः कातरशब्दवत् ॥

लोकप्रसिद्धानामेव शब्दानामत्यन्तविषमधातुगणोणादित्वादिभिरलौकिकसंज्ञापरिभाषानिवृद्धप्रक्रियैरनवस्थितस्थापनान्नेपसिद्धान्तविचारैः क्लेशितान्तं गत्वा यथावस्थितानुवादमात्रमेव क्रियते, तवापि चीदाहरणव्यतिरिक्तेषु कस्यचिदेव लक्षणयोजनसामर्थ्यं दृश्यते । तेनात्यन्तगुरुः सन्नयमुपायः स्तुत्यर्थमेव लघुरित्युपचरितः ।—Tantravārttika, pp. 265-66.

Bhāmaha very felicitously expresses the idea thus :

सूत्राभ्यसं पदावर्तं पारायणरसातलम् ।

धातूणादिगणग्राहं ध्यानशहृदहत्तुल्यम् ॥

धीरैरालोकितश्रान्तमसंधोभिरसूयितम् ।

सन्दोपयुक्तं सर्वाभिरव्यविद्याकरेणभिः ॥—VI, 1-2.

² सन्देहोऽपि न कश्चिद् वेदार्थं व्याकरणेन पराण्यते, प्रतिवाक्यमुपपन्नमाननानाविधसन्देहसहस्रविश्वसनफला मीमांसा दृश्यते न व्याकरणम् ।—N. M., p. 412.

come across the Vedic text अक्ताः शर्करा उपदधाति, i.e., anointed pebbles are to be placed and are in doubt whether the pebbles are to be anointed with ghee or oil, it is Mīmāṃsā that comes to our help and tells us that the subsequent mention of ghee in the *arthavāda* makes it quite clear that in the present case it is ghee that has to be used as the ointment and not oil. And what do the grammarians themselves do when they are in doubt as to the precise meaning of an expression in their precious rules? Do they not rely on the authoritative explanations on the point? What harm is there, therefore, in relying on traditional explanations for determining the meaning of such compounds as स्थूलपृषतो, etc.? Where then does grammar come in?

Thus to say that रक्षा, etc., are the purposes served by a study of grammar is an insult to the intelligence. We may summarily dismiss the further reasons adduced in support of the study of grammar, for since these principal purposes have failed to establish the utility of grammatical studies, it would be like leaning on a broken reed to expect anything from the subsidiary reasons.¹

It has been said by Bhartṛhari that the true nature of sounds (words) can only be learnt with the aid of grammar (तत्त्वावबोधः शब्दानां नास्ति व्याकरणादृते). This is entirely wrong. What he ought to have said is तत्त्वावबोधः शब्दानां नास्ति श्रोत्रेन्द्रियादृते—(T. V., p. 260).

5. Lastly the rules of grammar are, in many cases, in conflict with the Vedas. To explain the formation of the word कालिय Pāṇini has laid down the rule कलेर्दक् (IV. 2. 8) which means that the affix दक् is to be added to the word कलि in the

¹ तेन रक्षोहागमलघुसन्देशः प्रयोजनमिति यदुक्तं तन्न सुत्याहृतम् । यान्यपि प्रयोजनान्तराणि भूयांसि “तेऽसुरा हेलयो हेलयः” इत्युदाहरणदिशा दर्शितानि तान्यपि तुच्छत्वादानुषङ्गिकत्वाच्चोपेक्षणीयानि । तदुक्तम्—
अर्थवत्त्वं न चेज्जातं सुखैरपि प्रयोजनैः ।

तस्यानुषङ्गिकेष्वप्या कुशकाशावलम्बिनौ ॥—N. M., p. 412.

sense of दृष्टं साम. Similarly वामदेव्य is formed according to the next rule वामदेवाद्वाङ्मौ च (IV. 2. 9), in the sense वामदेवेन दृष्टं साम. In the Vedas, however, we find यदकालयत् तत् कालेयस्य कालेयत्वम् from which it is clear that कालेय is not derived from the base कलि but from the causal verb कालि. Similarly we find आपो ऋत्विमार्कस्तासां वायुः दृष्टे व्यवर्तत । ततो वामं वसु समभवत् । तन्नित्रावरुणावपश्यताम् तावब्रूतां वामं वा इदं देवेभ्योऽजनि तस्माद् वामदेव्यम् ।

Thus we see that the waters in their monthly courses had connection with the air and gave birth to treasure which accrued to the gods. Hence the name वामदेव्य (*vide* मयूखमालिका on Śāstradīpikā, I. 3. 9). Similarly for the etymology of the word यूप. In the उणादिसूत्र's the word यूप is derived from the root यु with the suffix प (कुयुभ्याञ्च III. 27). In the Vedas however it is derived from the root युप—यदयोपयत्तद् यूपानां यपत्वम्. And so on.

Now since in all cases of conflict between a श्रुति and a स्मृति it is the स्मृति that must go to the wall, we must reject grammar. Thus it has been said¹—Only those who are possessed by the devil, or afraid of the royal rod or cursed by their parents need take pains in the study of grammar.

The Nyāyamañjarī concludes the Mimāṃsaka's diatribe on grammar with the following words :—

सर्वथा दुर्व्यवस्थितं शब्दानुशासनम् । यच्च व्याख्यातृणामुक्तानुक्तदुरुक्त-
निरोक्षणप्रयत्नो यच्च वाचकमात्रावर्णाधिक्यमिषपुरःसरलक्षणपरिचोदनप्रकारो यच्चदं
व्याख्यातवचनम् 'इह न भवत्यनभिधानात्' इति, यच्च व्याप्तिसिद्धौ सरलमुपाय-
मपश्यतामाकृतिगणवर्णनं यच्च पदे पदे बहुलवचनं तत् सुतरामपरिशुद्धिमनुशासनस्य
दर्शयतीति ।

अन्ये तु शोभेति चौर्यमिति न याति प्रतिभेत्तुमिति मातुरनुहरतीति फलिन-
बर्हिणौ धासीति कान्दिशीक इति भ्राजिष्णुरिति गणैय इति वरेण्ड इति
लक्ष्यसंग्रहबहिष्कृतस्मृतिसन्देहविपर्ययप्रतिपादकत्वलक्षणस्खलितं विप्लवतं पाणिनि-

¹ दुष्टग्रहग्रहीतो वा भीतो वा राजदण्डतः ।

पितृभ्यामभिज्ञतो वा कुर्याद्वाक्ये अमम् ॥—N. M., p. 418.

तन्त्रं मन्थमानास्तत्र महान्तमाक्षेपमतानिषुः स तु स्थूलोदरप्राय इतीह ग्रन्थगौरव-
भयान्न लिख्यते ।

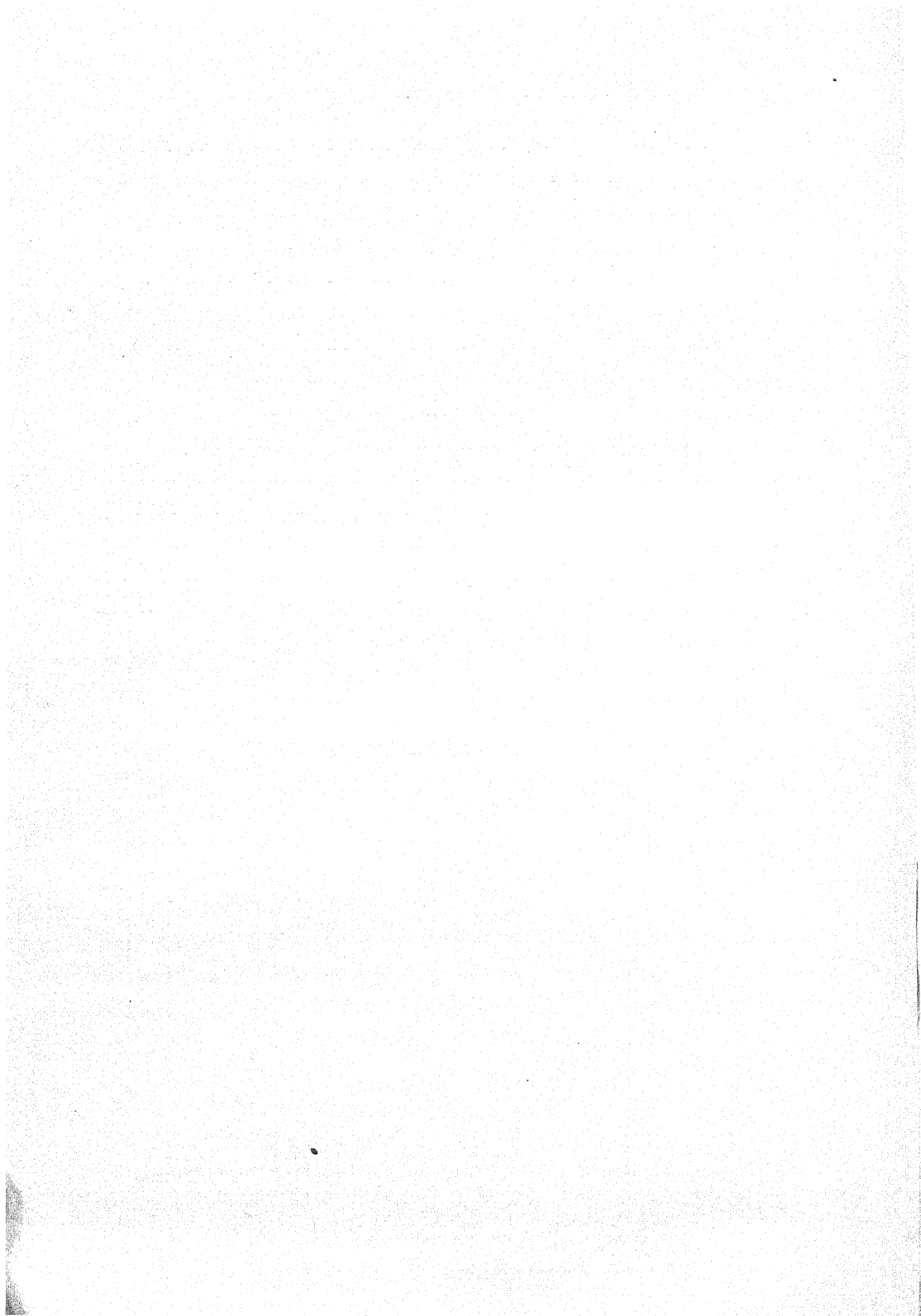
ननु यदि लक्षणस्य प्रणेता पाणिनि न सम्यग् दर्शयत्यत्र विवरणकाराश्च
नातिनिपुणदृशः, काममन्यः सूचीकृतबुद्धिर्भविष्यति वृत्तिकाराश्च प्रौढतरदृष्टयो
भविष्यन्ति तेभ्यः शब्दलक्षणमविश्रुतमवभोत्स्यामह इति । नैतदस्ति, तेषामप्यभि-
युक्ततराः केचित् प्रेक्षन्त एव दोषं तेषामपरे तेषामप्यपरे । तदेवमनवस्था-
प्रसङ्गान्नास्ति निर्मलमनुशासनमिति क्लेशायैव व्याकरणाध्ययनमहाव्रतग्रहणम् ।
तथा च ब्रह्मसूतिः—प्रतिपदमशक्यत्वाल्लक्षणस्याप्यव्यवस्थानात्तत्रापि स्खलितदर्शना-
दनवस्थाप्रसङ्गाच्च मरणान्तो व्याधिव्याकरणमिति ।

The science of grammar is not final by any means. The fact that commentators try to find out what has been said, what has been omitted and what has been wrongly asserted, the fact that faults are found with the rules under the pretext that a word contains more mātrās or more letters than are absolutely necessary, the words of the commentator 'the particular thing prescribed does not take place here because such a word is not in use,' the mention of आकृति-
गणः (i.e., lists which are not exhaustive but which have to be supplemented from usage) as no easy way is found for including all words, the use of the word बहुलम् at every step—all this shows clearly and distinctly the utter inadequacy of the science of grammar.

Others have found fault with the science of Pāṇini thinking it to be worthless as it labours under the defects of ambiguity and falsity inasmuch as it does not include within its scope such expressions as शोभा, चीरणम्, न याति प्रतिभेत्तुम्, फलिनवर्द्धिणौ धसि, कान्दिशीक, भ्राजिष्णु, गणैय, वरेण्ड, etc. That is patent on the surface and so is not discussed here for fear of increasing the bulk of the volume.

Well should you say, 'If Pāṇini, the composer of the rules does not expound properly and if the commentators are also far from being very clear-sighted in these matters, it must be admitted that there will be others whose intellect

is as clear as the needle, and the writers of the vṛttis will also be men of clearer insight, from them we shall learn the rules for the formation of words correctly,' that is not possible. People more learned than they find fault with what they say, and these in their turn are subjected to criticism by people more learned and they by others. So since there is thus no finality there can be no instruction of words free from defects and consequently the taking of the great vow of the study of grammar merely brings on distress. As Brhaspati says : As it is not possible to lay down rules for every word, as the rules again are not perfect, and as even in them slips and errors are found and consequently there is no finality in the science, grammar is a fatal disease, which baffles the skill of the physician at every step, the symptoms of which again are not permanent, and in the diagnosis of which the physician is apt to make mistakes.



A STUDY MAINLY IN THE LINGUISTIC INFLUENCE
OF THE AUTHORISED VERSION OF THE BIBLE
(1611).

By

SRI C. SEN, M.A.

Introduction.

'The Bible,' in the words of Prof. A. S. Cook, 'has been an active force in English Literature for over 1,200 years.' It cannot, therefore, be maintained without being unscientific that the multitudes of scriptural reminiscences which are found in English after 1611 are all to be associated with the Authorised Version as the cause is with the effect. Unless it is a case of some distinct reference to it, we cannot generally go beyond a mere assumption that literature produced in England since the publication of the King James's Bible has come under its influence. This hypothesis can occasionally prove misleading as it does in the case of some of Milton's writings. (See Cambridge History of English Literature, Vol. IV, p. 47.)

The present treatise has been confined mainly to an examination of the Jacobean Bible as a source of enrichment to the English language, and except for incidental references, no systematic notice has been taken of the biblical ideas which have so greatly coloured the tone and temper of English literature. The Hebrew influence at work in English can always be traced back to the Bible (see *The Legacy of Israel*, Edited by Bevan and Singer, p. 487) and its effect, to quote Laurie Magnus, is that, 'we think and act more Hebraico without conscious imitation.' It has been summed up for us in five words by

Wordsworth : ' Pure religion breathing household laws ' (see Legacy of Israel, p. 501). Browning's Rabbi Ben Ezra expresses a complete fusion of Hellenic and Hebraic ideas :

Rejoice we are allied
 To that which both provide
 And not partake, effect and not receive !
 A spark disturbs our clod ;
 Nearer we hold of God
 Who gives, than of His tribes that take, I must believe.
 Then, welcome each rebuff
 That turns earth's smoothness rough,
 Each sting that bids nor sit nor stand but go !
 Be our joys three-parts pain !
 Strive, and hold cheap the strain ;
 Learn, nor account the pang ; dare, never grudge the throe !

It is important to note that the influence of the Bible in English is properly speaking an infused element. The examples chosen to illustrate the range and variety of the inspiration supplied by the Bible tend to prove the fact.

The chief, though not the only, object of my present endeavour is to examine the King's Bible from the standpoint of its influence on the English language, and indicate the words, phrases, and grammatical forms preserved or popularised by it. My further object is to notice the verbal agreement with its language and discuss the more important among the numerous biblical imageries which have now established themselves as common modes of emphasis or expression in English. Short notes on some memorable biblical quotations, along with a few observations, more or less of a biographical interest, made in the essay, call for an explanation which may be rendered in the following manner : As I have intended this paper to be an integral part of a work larger in scope I have not hesitated occasionally to utilise material that may be regarded as outside the scope of an enquiry which strictly limits

itself to questions of language only. I have tried to make the object of my thesis sufficiently clear by the name chosen for it.

I have studied the English Bible carefully, making a note of all that interested me in it. As instances of familiar biblical phrases I have quoted only a few out of at least some five or six hundred, feeling that an attempt to include all is unnecessary from a strictly critical point of view. But I have taken particular care to select my list including in it only those phrases which are most known and used. Whenever any illustration was needed, I endeavoured to choose it from a well-known writer, but, at the same time, I did not lose sight of the fact that in tracing influences on language, minor authors should also be examined for a correct appreciation of an element so powerfully infused in the English language as the Authorised Version. The writers I have quoted are very large in number and form a varied list. I have mostly given exact references. Sometimes when I thought that they might be unnecessary, I gave only the names of authors without mentioning further particulars.

At the end of this paper is given a list of a large number of biblical words whose meanings have undergone changes since 1611, with copious illustrations of the biblical use of these words by later writers. In spite of the conservative effect of the Bible in securing permanence for words that would have gone out of vogue without its influence, it must not be imagined that the English Bible has been able to resist the force of time, and, many words used in the Jacobean Version have now become quite obsolete. In preparing this list I generally used materials which I gathered from the original books I read, though I was considerably helped by the Oxford English Dictionary.

English, written outside England,—in America, India and some Colonies—is often dominated by the language of the 1611 Version even more strikingly than in contemporary England

(*e.g.* Abraham Lincoln, Whitman, Olive Schreiner, Gandhi). To this subject attention may be given with profit.

Many of the best things in English are on biblical subjects and a further enrichment of English literature has taken place from the ideas which have flowed into it from the Bible. In the beginning of the 19th century poets pictured to themselves an ideal condition of human happiness on earth, and sang rapturously of a coming millennium. This idea is based upon Rev. 20. 1-5. Literature and life are so closely bound together that to consider them apart is to knock much interest out of both. The Bible has not only led to songs and visions but to adventure also. When the Pilgrim Fathers left England, they thought of America in terms of the scriptural "Land of Promise" with which they were so familiar.

CHAPTER I

A GENERAL SURVEY

For the most part the literary work done in the Old English period was strongly under the influence of the biblical diction. Even Bede's Ecclesiastical History of the English people was affected by it and the important links in a continuous chain that carry us forward to the time of Wycliff are supplied by Caedmon in the 8th century, Aelfric in the tenth, and the author of *Pearl*, possibly a contemporary of Wycliff, in the fourteenth century (see Cambridge History of English Literature, Vol. IV, p. 37). *Ormulum* and *Piers Plowman* are not a little indebted to biblical diction. Chaucer occasionally gives a rendering of some verses of the Bible, to which prose of the time, being comparatively undeveloped, could not do equal justice.

Chaucer has :

Caste alle away the werkis of derkness,
And armeth you in armure of brightnesse

(Second Nun's Tale, 384-5.)

where the second Wyclifite version reads :

Rom 13. 12. 'Therefore caste we awei the werkis of derknessis, and be we clothid in the armeris of lyt' (*ibid*, p. 38). The Middle English period, which saw the growth of drama in England, was remarkable for the large measure of biblical thought and language which came into the literature produced at the time. The Miracle plays dramatized the biblical stories and the Morality plays carried forward the same traditions with the alterations dictated by the development in the general outlook, and while allegory and symbolism entered the Morality

plays, the Devil and the Vice continued to supply the fun which characterised the Miracle plays and preserved this comic element intact, because of its popular demand, till the time of Shakespeare who more than satisfied it by his comic creations, showing unprecedented subtlety and skill. The nature of the Miracle plays will be justly appreciated from a list of some of them given below. They all belong to the Towneley Cycle :

Noah ; Abraham and Isaac ; Jacob and Esau ; the Old Testament prophecies of Christ ; Pharaoh ; the Annunciation, Salvation and Nativity ; the visit of the Wise Men, the Flight into Egypt, the slaughter of the Innocents, the purification, Jesus among the Doctors, John the Baptist, the Last Supper, three plays on the Passion and the Crucifixion, Harrowing of Hell, the Resurrection, the Appearance of Christ to the Disciples, the Ascension, Doomsday, the Raising of Lazarus, and the Hanging of Judas.

No comment is needed to show that all the above plays deal with scriptural subjects, and if the scope of the present treatise allowed a detailed examination of them, it could have been clearly indicated that they owe far more than their material to the Bible.

The galaxy of brilliant poets and dramatists who flourished in the Elizabethan period do not properly belong to the province of this paper. By the time of the publication of the King James's Bible, most of the writers of the age had brought their work to a conclusion (see Cambridge History of English Literature, Vol. IV, p. 47). But it may not be inappropriate to examine a few cases to form an opinion on the influence of the Bible during this time. Spenser borrows the very words of David to welcome his bride in the Epithalamium :

Open the temple gates unto my love
Open them wide that she may enter in

For to receyve this saynt with honour due
That cometh in to you.

Ps. No. 24 which these verses reproduce with very little alterations runs as follows in the Authorised Version :

Lift up your heads, O ye gates;
And be ye lift up, Ye everlasting doors
And the king of glory shall come in.....

Bacon died in 1626 but it is not probable that he read and was influenced by the King's Bible which was given to the world only some years before he died. Scattered through all his essays and writings there are many biblical reminiscences which often agree in language with the texts of the Authorised Version. In his essay entitled *Of Revenge*, occurs the following passage :

“The Spirit of Job was in a better tune : ‘ Shall we, saith he, take good at God's hands, and not be content to take evil also.’ ” The verse referred to is Job II. 10, which in the A. V. reads :

“But he said unto her, Thou speakest as one of the foolish women speaketh. What ? Shall we receive good at the hand of God, and shall we not receive evil ? The essay *Of Envy* has : “ the scripture calleth envy ‘ an evil eye.’ ” The biblical passage referred to runs as follows : Thefts, covetousness, wickedness, deceit, lasciviousness, an evil eye, blasphemy, pride, foolishness : (Mark 7.22).

Bacon gives a paraphrase of Psalm 90 :

O God, thou art our home, to whom we fly,
And so hast always been from age to age,
Before the hills did intercept the eye,
Or that the frame was up of earthly stage
O God, thou wert and are, and still shall be
The line of time, it doth not measure thee.

Not less than three books have been written, tracing the influence of the Bible upon Shakespeare, but by 1611, his

life-work was nearly done and he was getting ready for his final retirement to Stratford-on-Avon. Shakespeare's reading was mainly in the Bishops' Bible (see Sir Walter Raleigh's *Shakespeare*, p. 74), but the biblical reminiscences in his plays and poems are often in perfect agreement with the language of the Authorised Version. An instance may be cited : "Thou didst well; for wisdom cries out in the streets, and no man regards it" I Henry, IV, I, II, 82-83. Proverb I. 20 reads : "wisdom crieth without; she uttereth her voice in the streets"; Prov. 1.24 goes on "..... and no man regarded." This similarity is easily accounted for by the fact that "The Bishops' Bible (of 1568-72), of which the Authorised Version is avowedly a revision, supplied verbatim four-fifths, if not nine-tenths, of the whole text in the King's translation" (Dr. A. Edgar, *The Bibles of England*, 1889, p. 317.)

The Authorised Version of 1611 fixed a high standard of English prose in an age when prose was far from being satisfactory and was still an imperfect instrument of expression even in the hands of learned men. In Bacon we have an exception; the terse vigour of his style isolates him from the group of all the other writers who wrote no prose that could outlast the age. In spite of the superiority of Bacon in this respect, it is doubtful if he can be associated as writer of prose with the company of the scholarly divines to whom we owe the Authorised Version of the Bible. (See Saintsbury, *History of Elizabethan Literature*.)

Though the Authorised Version has been a great conservative influence in English, there are in it certain grammatical forms which are now held to be inadmissible. Cases of double comparison, quite frequent in Shakespeare (*cf.* the most unkindest cut of all—Julius Caesar, III, II. 189), are also to be met with in the English Bible such as 'Lesser Lights' (Gen. 1.16), 'most straitest' (Acts 36, 51). 'Lesser Light' is a phrase which still exists in English, though double comparisons have entirely gone out of use. Adjectives with a superlative sense are not usually compared but we have 'more perfect' in the English

Bible (Acts 24.22). There is often in the Authorised Version 'shall' where one would now say 'will.' 'Its' is not found in the Bible. An example of this may be noticed: 'And the earth brought forth grass, and herb yielding seed after *his* kind.' Gen. 1.12. This form came into use towards the end of the sixteenth century and is not found in Spenser. "Shakespeare and Bacon use it rarely, Milton more frequently, and in Dryden it becomes common." (Morris, *Historical Outlines of English Accidence*, London, 1912, Section 186.)

The *th*-form in the third person singular, which we come across in the Bible, persisted throughout the seventeenth century and many instances of its use are to be found in the literature of this period. The following is selected from the writings of Halifax (1633-1695):

"Their first insufficiency maketh them lean so entirely upon their parents for what is necessary, that the habit of it maketh them continue the same expectations for what is unreasonable" (*Advice to a Daughter*).

It is still common in poetry. The vogue of this grammatical form is entirely due to the Bible (see Otto Jespersen, *Growth and Structure of the English Language*, p. 226). In the 18th century poetry the *th*-form is very rare. The romantic poets revived it, and in the prose of the last century it was sometimes employed to secure an effect of solemnity. One or two examples are given: "she hath repaired, by subsequent kindness to him, these severities, which it must be owned made his childhood very unhappy." (*Thackeray's History of Henry Esmond*.) "who..... hath worshipped some idol or another" (*Henry Esmond*). Lamb often reverts to the *th*-form though evidently not for the purpose of a solemn asseveration: "He is the true Propontic which never ebbeth! The sea which taketh handsomely at each man's hand. In vain the victim, whom he delighteth to honour, struggles with destiny." (*Essays of Elia, The Two Races of Men*.) As an additional syllable in the service of rhyme the *th*-form has proved a very useful instrument

in the hands of the poets. The following examples will show what results are obtained by making use of it when necessary (*ibid*, p. 199) :

Ingratitude to God, who feeds our hearts

For His own service, knoweth, loveth us.

(Wordsworth, Prelude, 13. 276.)

Full desertness

In souls, as countries, lieth silent-bare

Under the blanching, vertical eye-glare

Of the absolute Heavens.

—E. B. Browning (Grief.)

In prose some recent writers have commenced a style of writing in which the *th*-form is very largely employed but it lacks spontaneity and seems disgusting for its artificial air of solemnity (*ibid*, p. 200).

Hebraisms in English.—Hebrew words in English may mostly be referred back to the influence of the Old Testament or the Rabbinical students of the same, as Shibboleth, Sabbath, Rabbi, Jew, Cabala, Talmud, Cherub, Hallelujah, Hosanna, Cider, Jubilee, Leviathan, Manna, Satan, Behemoth, Messiah, Amen, Sack, Seraph, Shekel, Camel, Jot, Ebony, Cinnamon.

A. Meillet in the *Legacy of Israel* (Ed. by Bevan and Singer, Oxford, 1927, p. 477), says, “There are many words which would have borne quite another meaning if they had not absorbed the contents of Hebraic words and phrases.” As instances he gives the following words : curse, bless, abominate, devil and angel.

Mr. Laurie Magnus sees a particularly fine example of Hebrew simile in modern poetry in Shelley’s image of life :

Like a dome of many-coloured glass

Stains the white radiance of eternity.

The poetical image in the following verses out of Browning’s *Saul* seems to have been suggested by Is. 40. 26 f. (see E.

G. King, *Early Religious Poetry of the Hebrews*, Cambridge, 1911, p. 25).

the tune all our sheep know, as one after one,
So docile they come to the pen-door till folding be done.

.....
And now one after one seeks its lodging, as star follows star
Into eve and the blue far above us,—so blue and so far!

A striking example of Hebraism is seen in Cowper's Hope :—

And place, instead of quirks, themselves devise
Lama sabachthani, before their eyes.

The Bible has brought into vogue many Hebraic expressions which, through long familiarity, have now ceased to offer any difficulty (see *Cambridge History of English Literature*, Vol. IV, p. 49). Phrases like, 'smote them hip and thigh' (Judges 15.8), 'walk in the counsel of' (Ps. 1. 1), 'stand in the way of' (Ps. 1. 1), 'sit in the seat of' (Ps. 1. 1) are some examples of Hebrew idiom in English (see Robertson, *Explorations*, 40 f.). In some cases they have even supplied the model for many subsequent phrases (see Otto Jespersen, *Growth and Structure of English Language*, p. 235). A few examples are given below :

Man of sin, Oil of gladness, King of kings, Bone of bones, and flesh of flesh (Gen. 2. 23.)

The phrase 'man of God' (2 Kings 1.13) may be compared with the following : man of letters, man of spirit, man of character, man of science, etc., which we constantly meet with and use. Analogous to the scriptural 'holy of holies,' 'vanity of vanities,' 'king of kings,' which illustrate the Hebrew manner of expressing the superlative (*ibid*), we may note : 'A doubtful dream of dreams' (Swinburne, *Garden of Proserpine*, 4); 'Life of life,' (Shelley's *Hymn to the Spirit of Nature*); 'She is a modern of the moderns' (Ward's *Eleanor*) ; 'a while he thought of it—surprise of surprises—he bowed his head on his folded arms and wept'

(Stanley Weyman, *The Long Night*); 'heart of hearts,'—*cf.* the inscription on the tomb of Shelley; 'the place of all places' ('Jane Austen, *Mansfield Park*, p. 71); 'I remember you a buck of bucks' (Thackeray, *Newcomes*); 'every lad has a friend of friends, a crony of cronies, whom he cherishes in his heart of hearts' (*Newcomes*); 'the evil of evils in our present politics' (Lecky, *Democracy and Liberty*); 'The woman is a horror of horrors' (H. James, *Two Magics*, p. 60); 'that mystery of mysteries, the beginning of things' (Sully, *Study of Childhood*, p. 71); 'love like yours in the pearl of pearls and he who wins it is the prince of princes' (Hall Caine, *Christian*, p. 443); 'Christianity had been the study of studies for Sandys' (Barsie, *Tommy and Grizel*, p. 6); 'land of lands' (Browning *De Gustibus*); 'Hour of hours' (Yeats, *The Secret Rose*); 'My life of life,' 'my saint of saints,' 'My flower of flowers' (Mangan, *Dark Rosaleen*); 'Night of all nights' (Morris, *Mother and Son*); 'They are first spun and woven, I may say, by that wonder of wonders, Society' (Carlyle, *Sartor*); 'ten years of years' (Rossetti, *Blessed Damozel*); 'he sketched this little, enormous parson of parsons' (Thackeray, *George Cruikshank*); 'the Light of Lights looks always on the motive, not the deed,' 'The Shadow of Shadows on the deed alone' (Yeats, *Countess Cathleen*, Sc. V).

Quotations from the Bible are to be met with in books of fiction as well as in works which are concerned more or less to prove a dogma or a theory. Sometimes the quotations are accurately given, though oftener familiar biblical passages are glanced at or reproduced in the author's own language from motives varying from those of simple fun or humour to those of serious exhortation, description, etc., as in the following instances: "A German woman has found some diamonds inside a ham. Of course it is only pearls that swine hate so much" (*The Punch or the London Charivari*, p. 393, Oct. 10, 1921); 'Mr. Aldus Huxley not only does not inherit or continue those ideals which broadly began with Rousseau, he turns on them and rends them

(Fortnightly Review, Sept., 1930, p. 237); 'Sufficient unto the day was the good thereof' (Galsworthy, Forsyte Saga, p. 420); again, 'Oh! well, sufficient unto the night' (*ibid*, p. 926). 'I hope I do not break the fifth commandment, if I conceive I may love my friend before the nearest of my blood, even those to whom I owe the principle of life' (Sir Thomas Browne, Religio Medici); 'In some ways Clumbury is the quietest because it is off the road, and few must be the travellers who find it' (E. V. Lucas, Character and Comedy, p. 72); 'The world which took but six days to make, is like to take six thousand to make out' (Sir Thomas Browne, Christian Morals); 'No miracle in prospect—no case of seven loaves and a few fishes—faith rested on solider foundation' (Forsyte Saga, p. 1001); 'It's better that one of you should be in the street than that all of you should' (Galsworthy, A Modern Comedy, p. 59); 'Almost thou persuadest me to be a capitalist' (*ibid*, p. 145); 'I know it was an excellent opportunity for turning the other cheek, but I didn't think of it in time' (*ibid*, p. 573); 'Not only out of the mouths of babes and sucklings but out of the mouths of fools and cheats, we may often get our truest lessons' (O. W. Holmes, Professor at Breakfast Table, p. 16); 'Heaven who has provided charcoal burners unexpectedly, and a wench and her father for customers, will not allow this sparrow to fall unnoticed to the ground' (Hilaire Belloc, The Girondin, p. 130); 'A man does not live by charcoal alone' (*ibid*, p. 134); 'He...wandered about finding, like the dove in Genesis no rest' (Wodehouse, Picadilly Jim, p. 2); 'He temperamentally regarded the evil of the day as quite sufficient to it' (Galsworthy, The Patrician, London, 1924, p. 9); 'as he watched Creation's birth So we, in godlike mood, May of our love create our earth And see that it is good' (Rudyard Kipling, Sussex); 'Because you have been unfaithful in a very little you propose yourself to be a ruler over ten cities' (Stevenson, Virginibus Puerisque, see Matthew, 25, 14-30); 'Indeed it is a memorable subject for consideration with what

unconcern and gaiety mankind pricks on along the valley of the shadow of Death' (Stevenson, Aes. Triplex). This refers to Ps. 33. 4: 'though I walk through the valley of the shadow of Death, I will fear no evil.' 'Of making books' (Stevenson, El Dorado; Eccle. 7. 2: 'of making many books there is no end and much study is a weariness of flesh'). 'I am not content to pass away like a weaver's shuttle' (Lamb, New Year's Eve; from Job 7. 6; 'My days are swifter than a weaver's shuttle'); 'I read those parables—not guessing at the involved wisdom I have more yearning towards that simple architect that built his house upon the sand than I entertain for his more cautious neighbour' (Lamb, All Fools' Day). This refers to the parables of the foolish architect, Matt. 7. 26, 27: 'They too, like the middle class, will be encouraged to sit down at the banquet of the future without having on a wedding garment, and nothing excellent can then come from them' (W. B. Yeats, Reveries over Childhood and Youth, 1917, p. 43; Matt. 22. 11); 'Never till that moment had he realised how much the dread of bringing James's grey hairs down with sorrow to the grave had counted with him' (Galsworthy, Forsyte Saga, p. 715; see Gen. 42. 38); 'can't the dead past bury its dead (*ibid*, p. 906; Luke, 9. 60).

CHAPTER II

BIBLICAL IMAGERIES IN ENGLISH

Imageries of biblical origin are found abundantly in English. We propose to devote a short chapter to an examination of some of the more important examples of this class.

Salt of the earth (Matt. 5-13).

‘ They are the truly excellent of the earth—its salt, who reach the heart and the conscience’ (H. Venn in Carus); ‘ A little band, the supposed salt of the earth ’ (Morley Carlyle in Crit. Misc., Ser. I).

We may also note the following : ‘ His character has the salt of honesty about it ’ (Hazlitt, Table Talk, II, II. 24). ‘ A people without the salt of these qualities would arrive at the pettiness of China ’ (M. Arnold, Mixed Essays, Democracy, 19.)

Wolf in sheep’s clothing (Matt. 7.15).

‘ If wolves sometimes creep into Church in sheep’s clothing ’ (Croxall, Æsop’s Fables).

Potter and the vessel (Jer. 18.4).

Ay, note that potter’s wheel
That metaphor! and feel
Why time spins fast, why passive lies our clay
(Browning, Rabbi Ben Ezra.)

I know we are but clay,
Thus moulded to display
His wisdom and His power who rolls the years;
Whose wheel is Heaven and earth,—
Its motion, death and birth,
Is potter, then, the name that most endears?
(J. J. Murphy, Sonnets and other Poems).

Thou, Thou art the Potter, and we are the clay,
 And morning and even and day after day,
 Thou turnest Thy wheel, and our substance is wrought
 Into form of thy will, into shape of Thy thought, etc.

(J. Hastings, Great Texts of the Bible, p. 82).

Let go the myths and creeds of groping men,
 This clay knows nought—the Potter understands.
 I own that Power divine beyond my ken,
 And still can leave me in His shaping hands,
 But, O my God, that madest me to feel!
 Forgive the anguish of the turning wheel.

(Ada Cambridge, The Hand in the Dark).

The mustard seed (Matt. 13.31).

‘ Mistakes of policy which were perhaps the ‘ mustard seed’ when committed, grew into a mighty tree of mischief’ (Daily Telegraph, quoted by W. McMordie in ‘ English Idioms and how to use them’).

‘ This and the other pregnant device, now grown to be a world-renowned, far-working Institution like a grain of right mustard seed overcast into the right soil, and now stretching out strong boughs to the four winds, for the birds of the air to lodge in’ (Carlyle, Sartor).

Figs from thistles (Matt. 7.16).

‘ Waste not the time yet ours in trampling on thistles because they have yielded no figs’ (Carlyle).

Joaquin Miller, a great American poet, even more famous as a free-booter and goldminer, calls his work ‘ Figs from Thistle.’

Stone for bread (Matt. 7. 9).

‘ They are “ our children ” but when children ask for bread we are not to give a stone’ (Burke, Taxation’).

Needle's eye (Matt. 19. 24).

God's pity on the rich
Had we been through as many doors, and seen
The dishes standing on the polished wood
In the wax candle light, we'd be as hard
And there's the needle's eye at the end of all.

(W. B. Yeats, *The Countess Cathleen*, Sc. I).

Sands of the seashore (Gen. 22.17, etc.).

'For in this part of Shropshire the animals of the field are as the sands of the seashore' (E. V. Lucas, *Character and Comedy*, p. 71).

New and old wine (Luke 5.37).

'.....whose life has been wasted in the attempt to force the generous new wine of science into the old bottles of Judaism' [Thomas Henry Huxley, *The Origin of Species* (1860)].

CHAPTER III

SOME MEMORABLE BIBLICAL QUOTATIONS IN ENGLISH

A few words on some memorable biblical quotations in English literature may not be out of place here. The great influence which the Bible exercises upon man's feelings and emotions can be well seen in Dickens' Tale of Two Cities. Sydney Carton whose life has not been much of a success from lack of decision and energy, suddenly finds it easy for him to die for a man who has been his rival in the affections of a girl he loved. The impulse comes to him from his having thought of the words of the Gospel of St. John: 'I am the resurrection, and the life; he that believeth in me, though he were dead, yet shall he live; And whoever liveth, and believeth in me shall never die' (John, 11. 25,26). Sydney sees in these words a promise of eternal life and dies joyfully in the light of the new knowledge, linking himself by his sacrifice of life with those who had been martyrs to their faith. The same passage (John, 11. 25,26) has been quoted with powerful effect by Browning in his 'A Death in the Desert.' Two stanzas of this poem, where the reference occurs, have been used as introduction to his History of the English Bible by Bishop Westcott:

Then the boy sprang up from his knees, and ran
Stung by the splendour of a sudden thought,
And fetched the seventh plate of graven lead
Out of the secret chamber found a place,
Pressing with finger on the deeper dints,
And spoke, as 'twere his mouth proclaiming first,
'I am the Resurrection and the Life,' etc.

Daniel Defoe makes Crusoe remember the Bible as a source of courage and strength to him when the sudden discovery of a

foot-print on the sea-beach filled him with dismay. 'Call upon me in the day of trouble, and I will deliver, and thou shalt glorify me.' And thus comforted and encouraged Crusoe took up the Bible to read it. The first words to present to his eyes were 'Wait on the Lord, and be of good cheer, and he shall strengthen thy heart; wait I say on the Lord.' The simple folk, who become the heroes and heroines of Hardy's novels, often express their most deeply felt emotions in the language of the Bible, and sometimes their acts or resolutions are connected intimately with a suggestion received from the Bible. They are not children of an age, which has learnt to challenge every authority, living by choice in the midst of an atmosphere having none of the healing influences of faith. Tess (Hardy, *Tess of the D'urbervilles*, Macmillan and Co., Ltd., 1918, p. 103) lives through a moment of intense suffering when she sees the following text being painted on a wall: 'Thy Damnation, Slumbereth not' (2 Pet. 2, 3). The words enter Tess with accusatory horror and she is paralysed by fear to think that the man might know her recent history. She engages in earnest talk with him and asks to know if involuntary sin is also punished. But the man does not allay her anxieties, and after a few unsatisfactory answers he resumes his work of painting texts. It was with a sudden flush that she read and realised what was to be the inscription he was now half way through.

'Thou shalt not commit —'

and she left the place with great anguish in her heart. Jude, another of Hardy's important creations (*Jude the Obscure*, Macmillan & Co., Ltd., 1919, p. 115) expresses his unhappiness and tragic suffering in the very words of Job:

'Let the day perish wherein I was born, and the night in which it was said, there is a man child conceived.

'Let that day be darkness, let not God regard it from above, neither let the light shine upon it. Lo, let that night be solitary, let no joyful voice come therein, etc.'

Sometime a wonderful effect is obtained by an apt quotation from the Bible. In George Eliot's *Mill on the Floss*, Tom Tulliver and his sister are killed by a sudden flood, and though they had some differences causing a feeling of mutual distrust immediately before this last scene of their life, 'in their death they were not divided' (2 Sam. 1.23). These words, given at the end of the book, greatly heighten the effect of the story as the reader recalls the biblical context: 'Saul and Jonathan were lovely and pleasant in their lives, and in their death they were not divided.'

Accurate quotations from the Bible occur in books of all kinds. They are employed to emphasise a sentiment or to establish a statement. To mention an example, Shaw's *Intelligent Woman's Guide to Socialism and Capitalism* contains eight quotations from the Bible in its first 90 pages (pp. 3, 6, 8, 9, 32, 42, 45, 89). This practice is almost as common to-day as it had been in the past when learned scholars often referred to the Bible as the final authority in proving a proposition. Holland, for example, in his *Treatise against Witchcraft*, 1590, proves the existence of witches from the Bible and Bernard in his *First Booke* quotes the Bible to prove how much of supposed witchcraft is either mental disease or mere self-deception. Thomas Burnet (1635-1715) builds up his pre-geological dream in his '*Sacred Theory of the Earth*' upon the foundations of the Bible, and justification for slavery has been drawn from the patriarchal and later custom in biblical times, and more especially from Noah's curse on Canaan (Gen. 9.25).

CHAPTER IV

BIBLICAL WORDS AND PHRASES IN ENGLISH

Thousands of biblical words and phrases have found their way into the language of daily speech, and one often uses them without being conscious of the source from which they have been taken. For generations the Bible had been read by the learned and the simple alike, and as a result of long and intimate acquaintance with it, its language has passed into a man's daily vocabulary. Biblical phrases have been so greatly interwoven with the whole texture of the English language that it is not possible to speak English without using them (see Quiller-Couch, *The Art of Reading*, 155 f.). They enter into the speech of the savant and colour the talk of the simple peasant. They are used for emphasis, for praise or for condemnation. Their applications are as varied as their sense is rich. 'In many instances the modern use of words has been determined by the phrasal combinations into which they entered in the English Bible' (George Macknight, *Words and Their Background*, 1923, p. 143).

The following is a list of Biblical phrases most in use :—

- To hope against hope, Rom. 4.18.
- Stricken in age, Genesis, 18.11.
- Vain show, Ps. 39.6.
- Unstable as water, Gen. 49.4.
- Tell it not in Gath, 2 Sam. 1.20.
- A still small voice, 1 Kings 19.12.
- At their wits' end, Ps. 107.27.
- Hewers of wood and drawers of water, Jos. 9.21.
- The laws of the Medes and Persians, Esther, 1.19.
- Put not your trust in Princes, Ps. 146.3.
- Hope deferred maketh the heart sick, Prov. 13.12.

A soft answer turneth away wrath, Prov. 15.1.
The hearing ear and the seeing eye, Prov. 20.12.
Bread of idleness, Prov. 21.27.
Vanity of Vanities, Eccle. 1.2.
Balm in Gilead, Jer. 8.22.
Weighed in the balance and found wanting, Dan. 5.27.
Sow the wind and reap the whirlwind, Hos. 8.7.
Dream dreams and see visions, Joel. 2.28.
Not a jot, Matt. 4.18.
A proverb and a byword, 1 Kings 9.7.
Laugh to scorn, Eccle. 13.7.
Salt of the earth, Matt. 5.13.
The signs of the times, Matt. 16.3.
Strain at a gnat and swallow a camel, Matt. 23.24.
Whited sepulchres, Matt. 23.27.
Arose as one man, Judges, 20.8.
My name is legion, Mark, 5.9.
The law is open, Acts, 19.38.
God forbid, Rom. 2.31.
The wages of sin is death, Rom. 6.23.
Love is the fulfilling of the law, Rom. 13.10.
In the twinkling of an eye, 1 Cor. 15.52.
The right hand of fellowship, Gal. 2.9.
Labour of love, 1. Thess. 1.3.
Filthy lucre, Thes. 3.3.
Faithful unto death, Rev. 2.10.
Spoil the Egyptians, Ex. 3.22.
The end is not yet, Matt. 24.6.
Alpha and Omega, the beginning and the end, Rev. 22.13.
Fight the good fight, 2 Tim. 4.7.
Hope to the end, 1 Peter 1.13.
Dreamer of dreams, Deut. 13.1.
Well-stricken in age, Gen. 18.11.
As the shadow of a great rock in a weary land, Isaiah 32.1.
Gird up thy loins, Job. 38.3.
Viler than the earth, Job. 30.8.
Play the men, 2 Sam. 10.12.
As small as the hoar frost on the ground, Ex. 16.14.
Honour thy father and mother, Ex. 20.12.
Devouring fire, Ex. 24.17.

Go in peace, 1 Sam. 1.17.

God save the King, 1 Sam. 10.24.

With one consent, 1 Sam. 11.7.

As light of foot as a wild roe, 2 Sam. 10.12.

Halt between two opinions, 1 Kings, 18.21.

Turn the curse into a blessing, 2 Kings, 18.2.

From the rising of the morn till the stars appeared, Neh. 4.21.

Wrath killeth the foolishman, and envy slayeth the silly one,
Job. 5.2.

The root of the matter, Job. 19.28.

Physician, heal thyself, Luke, 4.23.

Many other phrases may be added: to cast pearls before swine, a howling wilderness, the shadow of death, the eleventh hour, sore afraid, widow's weeds, fowls of the air, snare of the fowler, the quick and the dead, heal thine iniquities, wax old as doth a garment, these twain, clean and unclean beasts, cleave to the roof of the mouth, a babel of sounds, highways and hedges, hip and thigh, lick the dust, clear as crystal, a thorn in the flesh, root of all evil, broken reed, sweat of his brow, heap coals of fire, a law unto themselves, the fat of the land, dark sayings, a word in season, moth and rust, the powers that be, deaf as an adder, olive branches, etc., etc.

Certain phrases have been derived from the Bible, such as 'to wrestle with a problem' (cf. St. Paul's figure in Ephesians 6.12: 'for we wrestle not against flesh and blood but against principalities'), and the 'Ladies and Gentlemen' of a modern orator seems to have been suggested by the less pompous 'men of Athens' of St. Paul (Act, 17.22). Greenough and Kittredge state psychological reasons for this (see *Words and their Ways in English Speech*, p. 37). Lamb's delicious phrase 'borrowing and to borrow' (see *The Two Races of Men in The Essays of Elia*) seems to be derived from the scriptural 'conquering and to conquer' (Rev. 6. 21). Browning perhaps took his suggestion for calling the second canto of his *Ring and the Book* 'Half-Rome' from 'half-Gilead' in Joshua, 12.2. When a man steps into a place vacated by the retirement of some one or when

he wishes to follow his policy, his predecessor's mantle is said to fall upon him. This phrase is derived from the Bible (1 Kings 17. 19, 21 and 2 Kings 1.9). As examples the following may be quoted : 'He has left us, not indeed his mantle of inspiration, but a name and an example, which are at this hour inspiring hundreds of the youth of England' (Robert Southey, *Life of Nelson*); 'The spirit which animated Wesley, and which had fallen like the prophet's mantle on the earlier Evangelicals, had now become cold' (Stopford A. Brooke, *Tennyson*).

Dr. Bradley in his *Making of English*, notices a few instances where the English Bible has given rise to phrases and uses of words through misunderstanding. The examples he mentions are : to see eye to eye, line of things, helpmate, he may run that readeth it.

'*Dove*' applied to the Holy Spirit, is of biblical origin (Luke 3.22). For an illustration we may take this : 'Return, O holy Dove, return' (Cowper, Hymn, 'O for a closer walk'); so also is '*lamb*' in 'So shows my soul before the Lamb, My spirit before Thee' (Tennyson, *St. Agnes' Eve*, 17). The meaning occurs in John 1.29, Rev. 17.4, etc. '*Mammon*' as an opprobrious term for wealth when it becomes an evil influence, comes from Matt. 6.24, Luke 16. 9-13. For an illustration the following is taken from Cowper's '*Charity*'—'*Mammon* makes the world his legatee Through fear not love.' '*Prodigal*,' a recklessly wasteful person—see Luke, 15.11-32 (*cf.* Wordsworth's '*prodigal's favourite*' in his '*Lesser Celandine*'). The word is also used attributively : 'Aunts Juley and Hester were on their feet at once, trembling from smothered resentment, and old affection bubbling up, and pride at the return of a *prodigal June*' (Galsworthy, *The Forsyte Saga*, London, 1929, p. 545). *Chosen vessel* has come from Acts 9.15. The more familiar expression *weaker vessel* has also been derived from the same source (1 Pet. 3.7). An illustration is given from a modern writer : 'We spend hours in Boulter's Lock on Sundays, meditating on the wisdom of keeping weaker vessels out of exhibition on that day'

(E. V. Lucas, *Over Bemertons*, p. 50). '*Seed*' in the sense of 'offspring,' 'progeny' is biblical in origin (Gen. 3.15). '*Chosen seed*' frequently found in Milton, can be referred back to the Bible. *Leaven* (Matt. 13.33, 26.6); 'An agency which produces profound change by progressive inward operation': 'Lest so corrupt a member should come again into the house of lords, and his bad leaven should sour that sweet untainted mass' (Lord Bolingbroke). Again in 'The evil leaven of the feelings remained,' (Stubbs, *Constitutional History of England*, 3.21, 542). *Sheep* (see John 10. 1-16) 'I.....found myself.....in Zion Chapel Meeting,.....which, calling its flock to their special clover, Found all assembled and one sheep over,' (Browning, *Christmas Eve*, II).

For other instances see Appendix.

CHAPTER V

VERBAL AGREEMENTS WITH THE LANGUAGE OF THE A. V. IN SOME WRITERS.

Elsewhere have been noticed some examples of biblical reminiscences in the various English writers. Here an attempt is made to include illustrations from the most important writers of the different epochs of English Literature since 1611, though no particular pains have been taken to treat of the subject from a strictly chronological standpoint.

Milton's style and vocabulary show considerable classical influence upon him, though he wrote mainly on scriptural themes. But scriptural echoes in his writing cannot always be referred back to the A. V. (see above, Introduction, p. 3).

His paraphrases of the Psalms, nineteen in all (Pss. 1-8, 80-88. 114 and Ps. 136), reproduce with slight variation the biblical language. The following examples will bear out the remark :—

Why do the Gentiles tumult, and the Nations
Muse a vain thing, the Kings of th' earth upstand
With power, and Princes in their congregations
Lay deep their plots together through each land,
Against the Lord and his Messiah dear, etc.

The above is a paraphrase of Ps. 2 : ' Why do the heathen rage, and the people imagine a vain thing ? The kings of the earth set themselves, and the rulers take counsel together, against the Lord,' etc.

Lord how many are my foes
How many those
That in arms against me rise
Many are they
That of my life distrustfully say,
Not help for him in God there lies.

The psalm (No. 3) reads : ' Lord how are they increased that trouble me ? many are they that rise up against me. Many there be which say of my Soul, There is no help for him in God.'

But I will in thy mercies dear
Thy numerous mercies go
Into thy house ; I in thy fear
Will towards thy holy temple worship low.

Psalm 5 runs : ' But as for me, I will come into thy house in the multitude of thy mercy ; and in thy fear will I worship towards thy holy temple.'

Again we may take Milton's paraphrase of the famous Psalm 8 :

When I behold thy Heavens, thy Fingers Art,
The Moon and Starrs which thou so bright hast set,
In the pure firmament, then saith my heart,
O what is man that thou rememberest yet, etc.

Psalm 8 : ' When I consider thy heavens, the work of thy fingers, the moon and the stars, which thou hast ordained ; What is man, that thou art mindful of him ? '

Milton was a profound scholar who had many sources for the enrichment of his style, but Bunyan based his education entirely upon the Bible (see J. A. Froude, Bunyan, E. M. L., p. 176), from which flowed into his language both phrase and feeling, the intensity of his personal convictions helping him to use the biblical diction often with a singular force. But a strange inconsistency in statements by different critics makes it somewhat hazardous to conclude if the writer of the *Pilgrim's Progress* came substantially under the influence of the Jacobean revision. Rev. H. C. Beeching writes : ' Bunyan's literary education was based upon two books, Foxe's Acts and Monuments and the *Genevan Version* of the Bible.' Quiller-Couch seems to have no notion of treading controversial ground when he says enthusiastically ' Bunyan though he had read few other books, has imbibed and soaked the *Authorised Version* into his

fibres' (Quiller-Couch : On the Art of Reading, Lecture VIII). J. M. Robertson in his *Explorations* hits Sir Arthur hard for what he goes on to describe as the Professor's ignorance of the true place of the A. V. in the evolution of English Prose, yet on this particular point his opinion being better supported (see *Camb. Hist. of Eng. Lit.*, Vol. IV, 47 ; *Ency. Brit.* 14th Ed., Vol. III, p. 536), seems to have the greater likelihood of being true.

Bunyan was so completely steeped in the Bible that if he spoke, he must speak in its language. A passage is quoted as illustration :

'As to the situation of this town, it lieth just between the two worlds, and the first founder, and builder of it, so far as by the best, and most authentic records I can gather, was one Shaddai; and he built it for his own delight. He made it the mirror, and glory of all that he made, even the top-piece beyond anything else that he did in that country; yea, so goodly a town was Mansoul, when first built, that is said by some, the Gods at the setting up thereof, came down to see it, and sang for joy.' 'The wall of the town was well built, yea so fast and firm was it knit and compact together, that had it not been for the townsmen themselves, they could not have been shaken, or broken for ever.'

George Fox, the celebrated founder of the Society of Friends, like his great contemporary Bunyan, read little else than the Bible (see A. I. Fitzroy's Preface in *English Prose*, Ed. by A. Craik, Vol. III). The influence that it had on his writing is abundantly shown by his *Journal* from which the following is selected :

'And as I was walking along with several friends, I lifted up my head, and I saw three steeple-house spires, and they struck at my life, and I asked friends what place that was, and they said Lichfield; immediately the word of the Lord came unto me that I must go thither.'

‘ Sound, Sound abroad, ye trumpets, and raise up the dead, that the dead may hear the voice of the Sons of God, the voice of Second Adam, that never fell, the voice of the light, and the voice of the life; the voice of the power and the voice of the truth; the voice of the righteous and the voice of the just.’

Again the following passage from his Greeting to Charles II on His Restoration is another remarkable indication of the fact that the Bible moulded his language :

‘ Let thy moderation be known unto all men, for the Lord is at hand whose presence filleth Heaven and earth; and let such a nobility appear in thee as to try all things and to hold fast that which is good; and either to read or to hear with patience before thou judge, for wisdom becometh a King, and true reason, solidness and patience, him that is a ruler of the people. (See 1 Thes. 5.21; Prov. 4.7, 16. 16, etc.)

Dryden parodies the scriptural description of John the Baptist in his Satire on Shadwell :

Even I, a dunce of more renown than they,
Was sent before but to prepare thy way:
And coarsely clad in Norwich druggot came
To teach the nations in thy greater name.

(Mac Flecknoe.)

The following is taken from the Preface to *Religio Laici* :
‘ I lay no unhallowed hand upon the ark, but wait on it, with the reverence that becomes me at a distance.’ (The reference here is to Ex. 25. 10, etc.)

Bishop Burnet (1643-1715) is a notable example of biblical influence. Scriptural expressions come profusely into his language, and he often also quotes directly as in the following :

‘ I have found this was also vanity and vexation of spirit, though it be of the best and noblest sort.....so that, upon great and long experience I could enlarge on the preacher’s text. Vanity of vanities, and all is vanity; but I must also conclude with him—Fear God, and keep His Commandments, for this is

the all of man, the whole both of his duty and happiness (History of My Own Times; the references are to Ecc. 1, 1., 12.13).

William Penn (1644-1718), founder of Pennsylvania in U. S. A., wrote some powerful tracts in support of his Quaker-faith. The following examples are taken from his 'No Cross, No Crown' (See Eng. Prose, Ed. by H. Craik, Vol. III, p. 335).

such as thou sowest thou shalt reap (cf. Luke 8.5 f.)
death and wrath that are the assured wages of the sin
they live in——(see Rom. 6. 23.)

Samuel Clarke (1675-1729).—Writing about his style A. I. Fitzroy remarks, 'it is usually intelligible and fairly clear, but it inclines to be ponderous, and is marred by too plentiful sprinklings of scripture texts.' An example will illustrate Clarke's usual manner: 'whose power was it that framed this beautiful and stately fabric, this immense and spacious world? that stretched out the North over the empty place, and hanged the earth upon nothing?' (See English Prose, Vol. III.) This nearly reproduces Job 26.7: 'He stretched out the north over the empty place, and hangeth the earth upon nothing.'

In the 18th century England an artificial, stilted manner dominated the contemporary literature and the Bible receded into the background till it ceased to be important as an influence. Biblical reminiscences are rare in the polished language of the Augustans whose extreme solicitude to avoid the 'mean' and the 'vulgar,' led them into endless periphrases and away from all true and spontaneous emotion. No good poetry could thrive in such an uncongenial atmosphere. Satire and Mock-heroic poetry ruled the day and the best writers of the time established their reputation by their success in these literary forms. It became a common practice to satirise well-known men and women, giving them biblical names. The suggestion for this came from an anonymous tract, called Naboth's Vineyard, which gave

Shaftsbury the name of Achitophel before Dryden had produced his great satire (Absalon and Achitophel). Pope also made use of scriptural names in his satires on contemporary characters. He refers to Lord Bolingbroke as St. John in his Satires and Epistles from which a passage is quoted below :

St. John, whose love indulg'd my labours past
Matures my present, and shall bound my last!
Why will you break the Sabbath of my days?
Now sick alike of envy and of praise.

Biblical reminiscences are not rare in Pope : ' These, when they flatter most, do but as they would be done unto.' (Essay on Dedications.)

' When I reflect how acceptable a sacrifice of first fruits was to heaven ...' (*Ibid*, see Rom. 11.16).

' I think I love you as well as King Herod could Herodias (though I never had so much as one dance with you,' and would as freely give you my heart in a dish as he did another's head ' (Letter to Lady M. W. Montagu, 18 Aug. 1716. Cf. Matt. 14.)

In his Messiah, published in No. 378 of the Spectator, Pope utilized several passages of Isaiah. It is too long to be quoted in full but the famous 'Messiah' passage is given below :

The Swain in barren deserts with surprise
Sees lilies sprung, and sudden verdure rise;
And starts amidst the thirsty wilds to hear
On rifted rock, the dragon's late abodes,
The green reed trembles, and the bulrush nods
Waste sandy valleys, once perplexed with horn,
The spiry fur and shapely box adorn;
To leafless shrubs the flow'ring palms succeed
And od'rous myrtle to the noisome weed, etc.

But it is doubtful if Pope's religion permitted him to have an intimate acquaintance with the A. V., although it is no doubt reasonable to think that a literary monument like the 1611 version should exercise a general influence which soon tends to become unescapable.

Addison's hymns are still appreciated, though as a poet he cannot take a very high place. He made a free paraphrase of Ps. 23 which even now is quoted in some anthologies of English poems. It runs as follows :

The Lord my pasture shall prepare
And feed me with a Shepherd's care.
His presence shall my wants supply,
And guard me with a watchful eye.
My noon-day walks he shall attend,
And all my midnight hours defend.

The last stanza concludes :

Though in a base and rugged way,
Through devious lonely wilds I stray,
Thy bounty shall my want beguile,
The barren wilderness shall smile,
With sudden greens and herbage crown'd,
And streams shall murmur all around.

A word must be said about Cowper whose devotional songs still retain their vogue. There are passages in his poems which recall the Bible to the reader's mind. As a specimen a few lines are quoted :

There is a fountain fill'd with blood
Drawn from Emmanuel's veins,
And sinners, plunged beneath that flood,
Lose all their guilty stains.

Johnson's

Turn on the prudent Ant thy heedless eyes,
Observe her labours, Sluggard, and be wise, etc.

is a paraphrase of Prov. 6 'Go to the Ant, thou Sluggard, consider her ways, and be wise,' etc.

Gray's famous lines in the Progress of Poesy : 'Two coursers of ethereal race with necks in thunder clothed, and long resounding pace,' remind one of Job 39.19, 'Hast thou given the horse strength? hast thou clothed his neck with thunder?' The same passage (Job 39.19) has been used by a later poet, Mrs. Hemans, in her Heliodorus in the Temple..... 'a steed of no terrestrial fame His path a whirlwind and his breath a flame! his neck is clothed with thunder, and his mane seems waving fire.'

Upon Burke far more than upon any of his contemporaries the influence of the Bible is seen in a conspicuous manner : biblical reminiscences in which his writings abound may be limited to—

a phrase or a sentence, being more or less unconscious.

'By these words it appeared to the Colonies that this act was but a *beginning of sorrows*' (Matt. 24.8 ; Taxation) 'to preserve me from being *blown about by every wind* of fashionable *doctrine*' (see Eph. 4.14 ; Conciliation). With this may be compared a passage from Conyers Middleton's (1683-1750) letter to Venn 'staggering at every scruple, shaken by every breath of scandal' (Eng. Prose, Ed. by H. Craik, Vol. IV, p. 20).

'Your speech would betray you' (Matt. 26.73 ; Conciliation) cannot prevail myself to hurry over this great consideration. *It is good for us to be here* (Mark 9.5 ; Conciliation).

or deliberate quotations.

'If it be thus in the green leaf, what will it be in the dry,' Luke 24.31. Quoted in Regicide Peace, 1.

'...he shews that he places his treasure where his heart is and revolving in this circle, we know that "wherever a man's treasure is, there his heart will be also"' (Luke 12.34).

Beyond these examples, and others which are even less important the pseudo-classic literature of England does not

present any further proof of a striking character of biblical influence upon it.

Towards the end of the 18th century there was a return to colour, concreteness, and simplicity in English literature which was fully accomplished in the early years of the 19th century. This brought back into life influences which did not for a long time operate owing to the strong prejudice prevailing against whatever was natural or spontaneous, and the studied avoidance of any expression of personal feeling. The 19th century literature of England is full of biblical echoes. A few examples may be noticed :

Wordsworth's 'Thou liest in Abram's bosom all the year' (By the Sea) refers to Luke 16.22, 'And it came to pass, that the beggar died, and was carried by the angels into Abram's bosom,' etc. 'What way does the wind come? What way does he go?' (Address to a Child.) Cf. 'the wind bloweth where it listeth' (John 3.8).

In Ode on intimation of Immortality occurs this line, 'Another race hath been, and other palms are won,' reminding one of Hebrews 12.1 'Let us run with patience the race that is set before us.'

Weighed in the balance hero-dust,

Is Vile as vulgar clay.

(Byron's Ode to Napoleon)

The verse referred to in the above is Daniel 5.27. In Byron's poem on the destruction of the Assyrians occur many references to the Bible and the subject itself is scriptural.

The description of English character in Puritan England will remain imperfect if due notice is not taken of the great familiarity with the Bible which then existed. When Cromwell saw the mists disperse over the hills of Dunbar, he hailed the sun-burst with the cry of David: 'Let God arise and let his enemies be scattered. Like as the smoke vanisheth so shalt thou drive them away!' (J. R. Green, A Short History of the English People, Bk. VII). The practice of quoting the Bible, though not always with such striking effect, was by no means rare

as we learn from J. R. Green who puts into a short sentence what could easily be expanded into a volume, 'England became the people of a book, and that book was the Bible.' Further we are told by the Cambridge History of English literature that 'Men learned to identify themselves with the conquering exterminating children of Israel, and to look upon all who opposed them in politics or church doctrine as men of Belial, Moabites, Amalekites, and other adversaries of Israel and of God, and as their own personal enemies to be overthrown by any means of force or fraud!' (Cambridge History of English Literature, Vol. VIII, p. 78). Scott did not fail to recognise this fact in his novels where the language used by Puritans often shows such perversions of the Scriptures. In the Old Mortality the language of indignation used by the Puritans has everywhere the ring of some Prophetic Book of the Old Testament. The fact that Scott was a close student of the Bible is proved amply by his writings, specimens out of which have already been noticed. This is also seen from his Diary where he sometimes quotes the Bible as he does under date Jan. 21, 1826, faced by the greatest crisis of his life: 'Naked we entered the world and naked we leave; blessed be the name of the Lord.' There is an interesting episode of Scott's boyhood, told by his school-fellow, Claud Russel, which shows how deeply versed he was in the Bible even at that young age. Asked to tell what part of speech 'with' was, a stupid boy in his class answered 'a substantive.' The teacher then demanded to know if 'with' is ever used as a substantive. But all were silent until the query reached Scott who instantly responded by quoting a verse from the book of the Judges (16.7): 'And Samson said unto Delilah, If they bind me with Seven green withs that were never dried, then shall I be weak, and as another' (see J. G. Lockhart, Memoirs of the Life of Sir Walter Scott).

Tennyson's Ulysses, although classic in subject, is not so in manner. From the quotation of a few lines below it will

be evident that its language is largely that of the English Bible.

How dull it is to pause, to make an end,
 To rust unburnish'd, not to shine in use !
 As tho' to breathe were life. Life piled on life
 Were all too little, and of one to me
 Little remains : but every hour is saved
 From that eternal silence, something more,
 A bringer of new things; and vile it were
 For some three suns to store and hoard myself,
 And this gray spirit yearning in desire
 To follow knowledge like a sinking star,
 Beyond the utmost bound of human thought.

Phrases like 'to make an end' (1 Sam. 3.12), 'breathing and living,' 'little remains,' 'eternal silence' (Ps. 115.17), 'bringer of new things,' 'yearning in desire,' have an unmistakable biblical ring about them though not all of them are direct quotations. In the last line of the *May Queen*, Tennyson uses the well-known biblical passage (Job 3.17) making very little changes in it, 'And the wicked cease from trembling and the weary are at rest.' Tennyson also gives a paraphrase of the Parable of the Virgins but as the verbal agreements with the scriptural story are unimportant, the beauty of workmanship will not be a sufficient reason for its inclusion here.

Among the prose writers of the Victorian era Carlyle, Ruskin, and George Eliot are the most noteworthy examples of a style, the main elements of which are derived from the Bible.

Carlyle reminds one of a Hebrew Prophet calling men back to forgotten treasures in the spiritual and moral world to 'Pure religion breathing household laws.' Some examples from Carlyle have been given elsewhere and a few words may now be added suggesting the way in which he usually quotes the Bible. Carlyle quotes passages from the Bible, sometimes introducing them with the words 'It is written' but does not

always quote accurately. The following examples may be examined :

‘It is written when the blind lead the blind, both shall fall into the ditch.’ The scriptural passage (Matt. 15.14) runs as follows : ‘And if the blind lead the blind, both shall fall into the ditch.’

‘It is written, Many shall run to and fro, and knowledge shall be increased’ (see Dan. 12.4). ‘Work while it is called to-day; for the night cometh wherein no man can work’ (see John 9.4).

Sometimes Carlyle’s descriptions are entirely scriptural :

‘In our wild seer, shaggy, unkempt, like a Baptist living on locusts and wild honey, there is an untutored energy, a silent as it were unconscious, strength, which except in the higher walks of Literature must be rare’ (Sartor, IV, Matt. 3.1-6). With the above may be compared the following out of Scott’s *Talisman* as the two writers use the same biblical passages :

‘.....his dress of shaggy skins, his uncombed and untrimmed hair and beard, his lean, wild and contorted features, and the almost insane fire which gleamed from under his bushy eyebrows, made him approach nearly to our Idea of some seer of scripture.’

More often fragments of biblical language are woven into his sentences so as to render it difficult to re-establish their separate identities of which examples have elsewhere in this paper been noticed.

Ruskin said at Oxford : ‘To my Bible I owe the best part of my taste in literature and the most precious, indeed, the essential part of my education.’ Saintsbury’s comment on his style is important : ‘Sometimes very often, of course his (Ruskin’s) rhythms are mainly scriptural as in that fine passage of *Modern Painters* which ends :

‘He has not heaped the rocks of the mountain only for the quarry ; nor clothed the grass of the field only for the oven.’ (English Prose Rhythm, p. 399).

'His books are full of it (the Bible). In *Modern Painters* 258 passages are quoted, and in the *Stones of Venice* 125 passages, to take no account of phrases and incidents which inspired some of his most glowing sentences' (Dr. George Howells, Introduction, iv, *Selections from the Bible*, C. U.).

The following passages taken out of George Eliot's *Romola*, where she is describing the sunrise in Florence, shows how greatly she is under the influence of the language of the English Bible :

'As the faint light of his course pierced into the dwellings of men, it fell, as now, on the rosy warmth of resting children, on the haggard waking of sorrow and sickness, on the hasty up-risings of the hard-handed labourer, and on the late sleep of the night student, who had been questioning the stars or the sages, or his own soul, for that hidden knowledge which would break through the barrier of man's brief life ..As our thought follows close in the slow wake of the dawn, we are impressed with the broad sameness of the human lot, which never alters in the main headings of its history—hunger and labour, seed-time and harvest, love and death.' In reading this one is reminded of some passages in the Bible, specially of Pss. 90, 104, 126 (see *Legacy of Israel*, 483 f).

George Eliot's famous 'O may I join the choir invisible' is full of biblical reminiscences. The following lines may be taken as illustration :—

.....The human sky
Be gathered like a scroll within the tomb
Unread for ever.

This is an echo of Isaiah 34.4 : 'the heaven shall be rolled together as a scroll.'

To the shorter poems of Browning, published in 1841-46, he gave the fanciful name *Bells and Pomegranates*, taken from the ornaments on the hem of the high priest's robe (*Exodus*, 39.24-6). Due notice of poems like 'Saul' may be taken when the influence of the Bible upon English literature is considered.

Henley's splendid lines 'out of the night that covers me,' etc., are full of biblical echoes. 'Black as the pit,' 'horror of the shade,' 'strait gate,' 'scroll charged with punishments' are all taken from the Bible.

An example may be taken out of D. G. Rossetti's *Blessed Damozel* :

And now she spoke as when
The stars sang in their spheres.

This contains a reference to Job 38.7 : 'when the morning stars sang together, and all the sons of God shouted for joy.'

The following verses from Christina Rossetti are full of biblical echoes :—

My heart is like a singing bird
Whose nest is in a watered shoot :
My heart is like an apple tree
Whose boughs are bent with thickset fruit ;
My heart is like a rainbow shell
That paddles in a halcyon sea ;
My heart is gladder than all these
Because my love is come to me.

(See Ps. 1.2, etc.)

Among the minor poets of the last century, Mrs. Hemans deserves special notice for the extent of the scriptural influence upon her work. In many of her poems she either paraphrases some passages from the Bible as in the following :

Beside the streams of Babylon in tears
Of vain desire, we sat: remembering thee,
O hallowed Sion! and the vanish'd years
When Israel's chosen sons were blest and free,' etc.

(See Ps. 137.)

or expands a short sentence from the Bible into a poem of which examples are more numerous. She takes the following, among many other scriptural passages, as the subjects of her poems :

'He walketh with God' (Gen. 5.24) ; 'The Rod of Aaron' (Numbers 17.8) ; 'I heard thy voice in the garden and I was afraid' (Gen. 3.10); etc.

She also has a series of poems on female characters of the Bible which include Miriam, Ruth (see Ruth) Rizpah (2 Sam. 21.10), Mary Magdalene, etc. Biblical allusions of a purely verbal nature which are our more immediate concern here, are also found in abundance in her poetry :

And haste ! ere bursts the lightning from on high,
Fly to the City of thy Refuge, fly !
(The Sceptic—see Numb. 35.)

Low its columns lie,
And dark the chambers of its imagery.
(From above.)

Ezekiel 8.12 has ' every man in the Chambers of his imagery.'

Awa-struck alike the timid and the brave,
Alike subdued the monarch and the slave,
Must drink the cup of trembling.
(From above.)

Is. 51.22 has ' I have taken out of thine hand the cup of trembling, even the dregs of the cup of my fury.'

Before concluding this chapter some more instances are noticed from the works of a few writers of to-day in addition to those referred to above :—

' It (the Christianity of Tolstoy) represents a tribute to the Christian religion more sensational than the "breaking of seals or the falling of stars."—Chesterton : Simplicity and Tolstoy (see Revelation V).

' The sight of His national city moved Him to tears, and the highest compliment he paid was, "Behold an Israelite indeed," Chesterton (see Luke, 19.41 ; again St. John 1.47 : ' Behold an Israelite indeed, in whom there is no guile.').

' The saying about little children and the kingdom of heaven was meant for the ears of all those who have it in their power to influence simple folk.' (Galsworthy, Talking at large. For the reference to the Bible see Matthew 18. 1-7.)

'They have a cumulative power that cannot be proved by quotation, wondering music, that blows where it lists,' etc. (Arthur Clutton-Brock, *The Defects of English Prose*. The reference here is to John 3.8).

'My first memories are fragmentary and isolated and contemporaneous, as though one remembered vaguely some early day of the Seven Days' (W. B. Yeats, *Reveries over Youth*, Macmillan & Co., Ltd., London, 1917, p. 1).

'As time goes on the spirit of science prevails, and the just and unjust stewards of the ballad become more distinct' (Oliver Elton, *Sir Walter Scott*, Edward Arnold & Co., 1927).

CHAPTER VI

BIBLICAL PROPER NAMES USED GENERICALLY

The Bible has given us a number of terms. Men may be variously signalled out as a *Joseph* (a chaste person, Gen. 37. 39), a *Samson* (a person of great strength, Judges 12.16), a *Solomon* (a person of great wisdom, 1 Kings 29), an *Ishmael* (an outcast, Gen. 16. 12), a *Dives* (a typical rich man, Luke 16. 19), a *lazar* (a poor and diseased person, Lk. 16. 20), a *Jezebel* (an impudent or an abandoned woman, 1 Kings 16. 31., cf., a painted Jezebel), a *Nimrod* (a great hunter or sportsman, Gen. 10. 8). One surely has no difficulty with phrases such as, Gallio-like behaviour (*i.e.*, behaviour of person, especially, official refusing to meddle outside his province, Acts 18), a Job's comforter (Job 11. 12), a doubting Thomas (Mark 3. 18), a Daniel (Matt. 24. 15), etc.

Another interesting word which the Bible has given is *maudlin*. Wedgwood's Dictionary thus states its meaning 'given to crying as the Magdalene is commonly represented. Hence crying or sentimentally drunk, half-drunk.'

Some examples are given below to show with what degree of freedom and felicity terms of this class have been used in English.

Jehu (2 Kings 9. 20 : 'the driving is like the driving of Jehu the son of Nimshi ; for he driveth furiously.'), used as *substantive* :—

- (1) a furious driver,
- (2) a driver, a coachman.

'But this new Jehu spurs the hot mouth'd horse' (Dryden, *Medal*, 119). 'Our Jehu was a hackney coachman when my

lord took him' (Congreve, *Double-Dealer*, 3. 3). 'He assured the Coachman that...his baggage...was perfectly light. But Jehu was inflexible' (Goldsmith, *Bee*, No. 5—*Reverie*). Used *attributively* :—

'He manages his fiery steeds in a very Jehu-like style' (N. S. Wheaton, *Journal*, 338). Used as *verb* = to drive : 'He himself was Jehuing his four-wheeled carriage' (*Examiner*, 1825, 266/2, see O. E. D.).

Nimshi (2 Kings 9. 20 : 'his name is still used in New England for a mischievous child' (Greenough and Kittredge, *Words and their Ways in English Speech*, p. 375).

Jezebel (1 Kings 16. 31 ; 19.1, 2 ; 2 Kings 8. 30-37) used allusively for a wicked or an abandoned woman or for one who painted her face.

'A Jezebel appears constantly dressed at her sashto attract the Eyes of all the idle young Fellows in the neighbourhood' (*The Spectator*, No. 175). 'Without money of her own, and with only a step-mother closely related to Jezebel—she was very unhappy in her home life' (Galsworthy, *Forsyte Saga*, p. 1020). 'Jeremy Collier attacked that godless, reckless Jezebel, the English comedy of his time' (Thackeray, *English Humourists*).

Lazar (Luke 16).

Used as *substantive* : a poor and diseased person, especially a leper. 'I marked a group of lazars in the market place—half-rag, half-sore beggars' (Tennyson, *Becket*, Act I, sc. 4). 'Wounded and spent to the lazar they drew, Leaving the road where the Legions roll through' (Kipling, *Works*, Vol. III, p. 99). Used *attributively* : 'Exposing our lazar-sores at the door of every proud Servitor of the French republick' (Burke, *Regicide Peace*, I).

Dives (Luke 16).

Used generically for 'rich man.'

'There must be rich and poor, Dives says, smacking his claret' (Thackeray, *Vanity Fair*, LVII). 'Pleading and

entreating with the Christian Diveses, of which the land is so full, for the tiny lazarus lying hard by their gate.' (See O.E.D.) 'Pauperdom, Divesdom, taxes, and all kinds of things' (Besant, *All Sorts*, XXVIII).

Samaritan (in reference to the story of the 'Good Samaritan,' Luke 10. 33).

'The Samaritans laughed and bade them not to think of price or money until their Captain should return' (Hall Caine, *Deemsters*, XXXIX).

Samson (Judges 13-16), person of great strength. 'Intellectual Samsons toiling with closed eyes in the mills and forges of Manchester and Birmingham' (see O.E.D.).

Solomon, a person of great wisdom; also ironically, a wiseacre.

'The azure skies Sing such a history of come and gone. Their every drop is as wise as Solomon' (Walter de la Mare). 'These Solomons delight to sit to a maker of wax-work' (H. Walpole, *Letters*, VI, 42). 'But the Old Swiss is a Solomon compared with him' (Scott, *Anne of G.*, XXX).

Ishmael (Gen. 16. 12), one at war with society.

'Men who are the very Ishmaels of the labour World' (see O.E.D.). 'Jos's tents and Pilan were pleasant to this little Ishmaelite' (Thackeray, *Vanity Fair*, XVII).

Nimrod (Gen. 10. 9), a great hunter or sportsman.

'Orion, the subject of this landscape, was the classical Nimrod' (Hazlitt, *On a Landscape of Nicolas Poussin*).

Job.

'Used in proverbial phrases as a type (a) of destitution, (b) of patience.'

'Job-like couched on dung and crazed with blains' (Browning, *La Saisiaz*, 355). 'You would provoke the patience of Job' (Fielding, *Tom Jones*, X.VIII). 'His father was rather like Job while Job still had land' (Galsworthy, *Forsyte Saga*, 899). Carlyle uses Job's news (in *Sartor Resartus*) for 'tidings of disaster,' probably, as Prof. MacMechan suggests, in imitation

of Hiobspost in German. Other phrasal combinations in English which the Book of Job have suggested are Job's comforter (*cf.* Job 16. 2) and Job's post (see Job 1. 13-19).

Judas (John 13.29; Matt. 26. 47).

Used as *substantive* = thief, betrayer.

' Mr. O'Donnell, M.P., described Mr. Gladstone when Prime Minister as a Judas who had betrayed Ireland by the kiss of peace to the persecutor and torturer ' (quoted by McMordie in his English Idioms).

Used *attributively* :

' Wherever on her borders courage is cold and faith dead, and patriotism has dwindled to the Judas desire to carry the bag and what is put therein, Russia finds her opportunity ' (London Times).

Judas kiss, a phrase which has become quite common in English, can be traced back to Matthew 26. 48. Kipling has ' Judas-gold ' (Works, Vol. I, p. 301). ' They only took the Judas-gold from Fenians out of Jail.'

Thomas (John 20.25) known as the doubting apostle. ' Mary, don't let my being an unbelieving Thomas weaken your faith ' (Mrs. Gaskell, Mary Barton, XII).

Pharisee (Matthew 23.13), hypocrite, formalist, self-righteous person.

' Our academical pharisees ' (Macaulay, Essay on Milton).

Goshen : (Gen. 45.10), place of light or plenty. ' We were enjoying ourselves at our ease in our little Goshen ' (Charles Lamb, Christ's Hospital).

Laodicean (Rev. 3. 15, 16), lukewarm, neither cold nor hot, indifferent in religion, politics, etc. ' You will loathe all this Laodicean cant of tolerance as I do ' (Mrs. H. Ward, R. Elsmere, 165). ' Two years earlier he would have been pronounced by numerous bigots on both sides a mere Laodicean ' (Macaulay, History of England, VII). ' This not exactly Laodicean

but in some respects "trimming" temperament is as noticeable in him in true prosodic respects as in regard of subject and of other matters' (Saintsbury, *History of English Prosody*, Vol. II, p. 287). Thomas Hardy calls one of his novels 'A Laodicean.' The substantive Laodiceanism stands for 'lukewarmness,' 'indifference.'

Abigail (1 Sam. 25. 24-31), the handmaiden of David. Often used in the sense of a 'lady's maid': 'Thou art some forsaken Abigail we have dallied with heretofore' (Congreve, *Old Bachelor*, III, VI, 157). 'Tyrrel, on entering his apartment, found that it was not lighted, nor were the abigails of Mrs. Dods quite so alert as a waiter at Longs' (Sir Walter Scott, *St. Ronan's Well*). 'The woman was dressed with a quiet neatness that seemed to stamp her profession as that of an abigail—black cloak with long cape, of that peculiar silk which seems spun on purpose for ladies' maids' (Lytton, *Caxtons*, XIV, VI, 370).

Adam (Rom. 6.6, etc.), the unregenerate man. 'Not so easily can the old Adam, lodged in us by birth be dispossessed' (Carlyle, *Sartor*). 'An impatience to shake off the old social and political Adam' (Grote, *History of Greece*, II, VI, 165).

A daring, though not dignified, example of this class is found in Jack London's *God of his Father*, p. 25: 'By the jumping *Methuselah*! That damned sky-pilot.' Galsworthy in the preface to his famous *Forsyte Saga* uses with great felicity a well-known passage in the O.T. (Jer. 7, 22): 'a little balm in the *hurried Gilead* of a dissolving progress.'

Barrere and Leland give *Aaron* used in the sense of a captain or a school of thieves as probably of biblical origin (see *Dictionary of Slang*, etc.). The word *Babylon* with which 'Babel' is identified by Mr. J. H. Fowler has come to signify 'the grandiose but ever-defeated ambitions of humanity.'

And all man's Babylons strive but to impart
The grandeurs of his Babylonian heart.

(F. Thompson, *Correlated Greatness*.)

Jeremiad (Jer. 25.8), doleful complaint. 'Nor was it until they reached Barnes that he ceased a *Jeremiad*' (Galsworthy, *Forsyte Saga*, p. 231). 'goaded by the constant reiteration of this *Jeremiad*, Emily said calmly, He took Winfred's pearls and a dancer' (Galsworthy, *ibid*, p. 485).

Peter is also used appellatively as shown by the following example :

"I will put you wise about our authors, and ready you up to go before Peter."

"Before Peter, Sir?"

"The Johnny with the Keys."

(Galsworthy, *A Modern Comedy*, p. 202.)

Before concluding this chapter, a few more such terms, arising from scriptural proper names, may be examined. Deut. 3.27 has given '*Pisgah* glance,' '*Pisgah* prospect.' *Ruth* whose story has been celebrated by at least three poets (Thomas Hood, Mrs. Hemans, and a recent poet, May Doney), and sung with splendid inspiration, though not with perfect veracity of detail, by Keats in three lines of matchless beauty—

Perhaps the self-same song that found a path
Through the sad heart of Ruth, when sick for home,
She stood in tears amid the alien corn :

becomes in the hand of Francis Ledwidge the source of a term, finely suggestive of the scriptural story :

Scenes of old again are born,
The woodbine lassoing the thorn,
And dropping *Ruth-like* in the corn
The poppies weep the dew.

Babylon (Rev. 17, etc., see above) in the sense of any great empire or vicious city ('Beneath the picture of this bright and Babylonish Street....',—J.B. Priestly, *Self-selected Essays*, p. 35).

Magdalen (Luke 7.37) in the sense of a reformed prostitute;
Armageddon (Rev. 16. 16) in the sense of a supreme conflict;

Babel ('The appalling Babel of his brain,'—Walter de la Mare) in the sense of confusion or confused noise, with a hundred such other words have passed into the language and are used without hesitation whenever the need arises. The examples, given above, will serve to illustrate with what freedom and ease proper names taken from the Bible have been made use of for conveying general notions.

CHAPTER VII

SOME PROPER NAMES DERIVED FROM THE BIBLE

From the Bible have come thousands of names many of which have become so common in English that nobody notices their origin except on deliberate reflection. Some of these biblical names have wonderful literary associations. To cite a single instance, Adam, Seth, and Dinah are names which we come across in George Eliot's famous novel *Adam Bede*. Such examples are so common that one can easily quote hundreds of them from memory. The following is a list of common English names derived from the Bible. It is necessary to mention here that the list may easily be much longer as will be evident on reference to some of the works on the subject, such as, Smith's *Dictionary of the Bible*, Nichols's '*What's in a Name*,' Jones's '*Proper Names of the Old Testament Scripture*,' etc.

Names of Men.

Adam, Gen. 2.15.
Barnaby, Act 4.36.
Bartholomew, Luke 6.14.
Benjamin, Gen. 35.18.
Caleb, Num. 13.6.
Daniel, Matthew 24.15.
David, 1 Sam. 16. 31.
Elijah, 1 Kings 17.3.
Emmanuel, Matt. 1. 23.
Enoch, Gen. 4. 17.
Ephraim, Gen. 4.52.
Ezra.
Gabriel, Dan. 8.16.
Hiram, 1 King 5.1.
Hosea, Hos. 1.2.
Ishabod, 1 Sam. 4.21.
Immanuel, Is. 7.14.
Isaac, Gen. 17.19.

Izra, 2 Sam. 20.26.
Jacob, Gen. 17.19.
Jairus, Luke 8.41.
Japeth, Gen. 5.32.
Javan, Gen. 10.2.
Jeremiah, 2 Chron. 35.25.
Jeremy, Matt. 2.17.
Jesse, 1 Sam. 16.1.
Joab, Gen. 10.29.
Joel, 1 Sam. 8.2.
John.
Jonah, 2 Kings 14.25.
Joseph, Gen. 30.24.
Joshua, Ex. 17.13.
Josiah, 1 King 13.2.
Judah, Gen. 29.13.
Laban, Gen. 24.29.
Lazarus, Luke 16.19.

Lemuel, Prov. 31.1.
 Lois, 2 Tim. 1.5.
 Lot, Gen. 11.27.
 Matthew, Luke 6.15.
 Mica, Judges 17.1.
 Michael, Numbers 13.13.
 Nahum, Luke 3.25.
 Nathan, 1 Chron. 2.36.
 Nathaniel, Peter 21.2.
 Nehemiah, Ezr. 2.2.
 Noah, Numbers 26.33.
 Obadiah, 1 Chron. 3.21.
 Obed, 1 Chron. 2.12.
 Ozias, Matthew 1.8.
 Peleg, Gen. 10.25.
 Phinehas, Ex. 6.25.
 Reuben, Gen. 29.32.
 Salmon, Matthew 1.4.
 Samson, Judges 13.24.

Samuel, 1 Chron. 6.28.
 Saul, 1 Chron. 1.48.
 Seba, Gen. 10.7.
 Seth, Gen. 4.25.
 Shadrach, Dan. 1.7.
 Simeon, Gen. 29.33.
 Simon, Matthew 13.55.
 Solomon, 2 Samuel 5.14.
 Tobias, Neh. 2.10.
 Uriah, 2 Sam. 11.3.
 Uriel, 1 Chron. 6.24.
 Zabdiel, 1 Chron. 27.2.
 Zaccheus, Luke 19.2.
 Zachariah, 2 King 14.29.
 Zadok, 2 Sam. 8.17.
 Zebadiah, 1 Ch. 8.15.
 Zebina, Ezr. 10.43.
 Zedeniah, Jer. 23.6.
 Zephaniah, 2 K. 25.18.

Names of Women.

Abigail, 1 Sam. 25.3.
 Achsah, Jos. 15.15.
 Anna, Luke 2.36.
 Azubah, 1 King 22.42.
 Deborah, Gen. 35.8.
 Dinah, Gen. 30.21.
 Elisha, 1 King 19.16.
 Elizabeth, Luke 1.15.
 Eva, Gen. 2.21.
 Hannah, 1 Sam. 1.2.
 Hephzibah, 2 King 21.1.
 Huldah, 2 King 22.14.
 Jamina, Job 42.14.
 Jane.
 Jerusha, 2 K. 15.33.
 Joan, Luke 8.3.
 Josephah, Ezra 8.10.

Judith, Gen. 26.34.
 Keturah, Gen. 25.1.
 Keziâh, Job 42.14.
 Lena.
 Magdalene, Matthew 27.56.
 Martha, Luke 10.38.
 Mary, Luke 1.36.
 Maud.
 Mehetakel, Gen. 36.39.
 Miriam, Neh. 26.59.
 Rachel, Gen. 33.1.
 Rebecca, Romans 9.10.
 Rebekah, Gen. 22.23.
 Sarah, Gen. 16.2.
 Susan,
 Susanna, Lk. 8.3.

References have been given, showing where these names may be found in the Bible, but in each case only one reference is mentioned, as an attempt to be exhaustive in the matter would appear extremely cumbrous. No reference has been given against the names of Gospel writers nor against those of the writers of books in the Old Testament.

CHAPTER VIII

CHANGES IN MEANING OF WORDS USED IN THE 1611 VERSION

Many words which are now employed have undergone changes in meaning since the publication of the King's Version. The importance of the subject calls for a detailed examination which will be made in the following pages. Expressions as for example, *anon* (immediately, Matt. 13. 20), *by and by* (soon, immediately, Matt. 13. 21, Luke 21. 9), *naughty* (good for naught, Jer. 24. 2), *outlandish* (foreign, Neh. 13. 16: 'even him did outlandish women cause to sin'), when they occur in the Authorised Version, must be properly understood, as failure to recognise the difference between their present meaning and the meaning they used to have, would lead to much confusion. In a passage like Eph. 6. 12: 'spiritual wickedness in high places' (the wickedness of the demons of the upper air), the obscurity is the result of having introduced the abstract 'wickedness' for 'wicked' and 'spiritual' for 'of spirits;' the meaning otherwise is simple enough.

Occasional changes have been introduced in the later editions of the Jacobean revision with a view to simplifying the language in which the persistence of some archaic form caused unnecessary difficulties. The most prominent of them is the word *unpossible* used in the Version of 1611, but afterwards corrected to 'impossible.' (See L. Pearsall Smith, *The English Language*, H. U. L., p. 90.)

In the Authorised Version we do not come across many instances of word-making but its influence has been to retain in use words and phrases which were passing out of vogue in 1611. They are now chiefly confined to literary uses, such are: quick (Eph. 2. 5) for living; apparel (1. Tim. 2. 9) and raiment (Gen.

27. 15) for dress; damsel (Ps. 68. 25) for a young unmarried woman; travail (Gal. 4. 27) for labour; firmament (Gen. 1. 6) for sky. The King's Bible preserves the Anglo-Saxon sense of many words, as for example, meat and drink, Heb. 9. 10 (O. E. *mete*, food); fowls of the air, Luke 8. 5 (O. E. *fugel*, bird); the quick and the dead, Num. 16. 48 (O. E. *cwic*, alive); wax warm, Ex. 22. 24 (O. E. *weaxan*, to grow); fast, Ps. 33. 9 (O. E. *faest*, firm); sore afraid, Jer. 2. 22 (O. E. *sar*, very); wroth, Gen. 4. 6. (O. E. *wrath*, angry).

Some bibilical words and phrases, originally not lacking in dignity of sense, have developed associations which have made their introduction in any serious writing inadmissible. Examples are—a rib (a wife, Gen. 2.2); a smooth man (Gen. 27.11); passed clean over Jordan (Josh. 2. 17); away with such a fellow (Acts 22. 22); skin of my teeth (Job 19. 20).

Cf. Rich are they, rich in wonders seen,
But poor in the goods o' men;
So that they ha' got by the *skin o' their teeth*
They sell their truth again.

(Kipling, *The Sea-Wife*, Works, Vol. I, p. 123.)

Many words of classical derivation retain their root-meanings in the Bible which have now become unusual. Some examples are given here:—Conversation (conduct, behaviour, Gal. 1. 13); instant (urgent, importunate, Luke 23. 23); convenient (fitting, Acts 24. 25); allow (praise, Rom. 7. 15); careful (full of care, anxious, Phil. 4. 6); provoked (called forth, 2 Cor. 9); amiable (lovely, Ps. 84. 1); avoid (depart, withdraw, from O. F. *evuider*, clear out, get quit of, Isa. 18. 11); fame (report, Gen. 45. 16).

Some prominent instances of changes in meaning are taken for a close study, after which is given a list containing words with illustrations from different writers.

In 'the abjects gathered themselves together against me, and knew it not' (Ps. 35. 15), the word *abject* means an

outcast, a degraded person. 'Abject' is not now commonly used as a substantive, its usual meaning being 'servile,' 'degraded,' though the biblical meaning is sometimes revived as in: 'the subject of a tyrant's will Became, worse fate, the abjects of his own' (Shelley, Prometheus Unbound, III. iv); 'what wonder that men have been deified and set up as idols of religious worship, when souls are only abjects to themselves' (H. Bushnell, Dark Things, 57). In Herbert (Temple Sacrifice, 36), the same meaning is found, 'servants and abjects flout me, they are witty.'

In 'And to know the love of Christ, which passeth knowledge, that ye might be filled with all the fulness of God' (Eph. 3. 19), *pass* is used to signify, 'to exceed,' 'to surpass.' The word has undergone a change in meaning but the biblical sense is to be met with in the works of some modern writers as in Cowper's Task, IV, 192: 'He marks the bounds which Winter may not pass, And blunts his pointed fury.'

In 'Behold, the Assyrian was a cedar in Lebanon with fair branches, and with a shadowing shroud, and of an high stature' (Ezek. 31. 3), the word *shroud* means 'shelter of a tree.' This meaning has become extremely rare though we come across it in Lowell's Biglow Papers, Ser. II. VI. 93, 'In ellum-shrouds the flashing hangbird clings.' *Silly* does not now mean 'simple,' or 'innocent,' though this is the meaning in 'For of this sort are they which creep into houses, and lead captive silly women' (II Tim. 3. 6). Earlier still this used to be the common signification, as for example, in 'A silly man, in simple weeds forworne' (Spenser, Faerie Queene, 1. 6. 35). This use is revived in 'If, as I believe, this is Heaven, My silly speech doth wrong it' (Southey, Joan of Arc, 1. 41).

In 'Lo shall we sacrifice the abomination of the Egyptians before their eyes, and will they not stone us?' (Exodus 8.26), *abomination* stands for 'a cause of pollution,' 'an idol'; this meaning has become very rare in modern English, though some instances may be found: Sullivan, View of Nature, II: 'Nor was it until the days of Hezekiah.....that this abomination

(the brazen serpent) was torn from the land ;' H. G. Wells, the Time Machine, Reader's Library, 212 : 'As I thought of that, I was almost moved to begin a massacre of the helpless abominations about me, but I contained myself.'

In Judges 18.11, 'six hundred men appointed with weapons of war,' *appointed* means 'provided with requisites,' 'equipped.' This meaning, which is not now usual, is found in 'The bravest and best appointed armies' (J. Barlow, Orations, 4th July, 11), 'Well appointed Road' (Merivale, Roman Empire, VXL).

The word *desire* in 'he reigned in Jerusalem eight years, and departed without being desired' (II Chr. 21.20), means 'to regret' which has now become obsolete. The biblical sense is found in 'she shall be pleasant while she lives, and desired when she dies' (J. Taylor, The Marriage Ring; Sermon 18).

In 'And it came to pass, that after three days they found him in the temple, sitting in the midst of the doctors, both hearing them, and asking them questions' (Luke 2. 46), *doctor* means a teacher and this meaning is still found in some writers : Burke, French Revolution, 32 : 'These new doctors of the rights of men ;' Newman, O. E. D., 'St. Augustine.....is the doctor of the great and common view that all untruths are lies.'

Chapman does not any longer mean a merchant, or a dealer as it does in 2 Chr. 9.14 : 'Besides that which Chapmen and merchants brought.' Its present meaning is a pedlar, though the biblical signification is occasionally found as in :

Sometimes too would the foreign Chapmen come
And beach their dromond in the sandy bay.

(Morris, Earthly Paradise, II, III, 378.)

Also, in 1859 Times, 16 April, 94: 'Mr. Cobden.....has made for us the best bargain.....ever made by Chapman.' (See O. E. D.)

The word *because* in 'the multitude rebuked them, because they should hold their peace' (Matthew 20.21), means 'in order that,' 'so that' which is not its modern signification. The biblical use is not at all common now. Examples may be

found in writers who belong to the latter half of the 17th century, though they become very rare afterwards. An instance is given : 'The reason why Birds are oviparous is because there might be more plenty of them' (H. More. See O. E. D.).

The word *beeves* is often found in the English Bible in the sense of 'oxen' as in 'whosoever offereth a sacrifice of peace offerings unto the Lord to accomplish his vow, or a free-will offering in beeves or sheep, it shall be perfect to be accepted' (Leviticus 22.21). The biblical meaning survives as poetic for 'oxen,' 'cattle,' as in

Let beeves and homebred kine partake
The sweets of Burn-mill meadow

(Wordsworth, Yarrow Unvisited.)

or in

They sought the beeves that made their broth,

(Scott, Lay of the Last Minstrel, VI. x. 10.)

Allow in Luke 11.48 : 'Truly ye bear witness that ye allow the deeds of your fathers' means 'to approve of' which, though not usual, is occasionally met with, especially in the literature of the last century as in Crabbe's *Village*, II.81.

..... Proud

To find the triumphs of his youth allow'd.

Battle means a body of troops in 'And the children of Ammon came out, and put the battle in array before the gate of the city.' This meaning has become extremely rare, though instances may be found :

In battles four beneath their eye,
The forces of King Robert lie.

(Scott, Lord of the Isles, VI. X.)

Careful retains its derivative meaning, full of care, anxiety, or concern in Dan. 3.16 : 'O Nebuchadnezzar we are not careful to answer thee in this matter.' This meaning is revived in 'It is a sight the careful brow might smooth' (Byron, *Lara*, I.XX).

Bottom means a valley in Zech. 1.8 : 'I saw by night, and

behold a man riding upon a red horse, and he stood among the myrtle trees that were in the bottom.' This has become an unusual sense of the word, though not absolutely rare as some cases may be quoted :

1732. Lediard Sethos. II. IX. 294 ; O. E. D. 'This bottom, or inclosure.....was about two hundred paces broad.'

'There are on the borders of the rivers some rich bottoms, formed by the mud brought from the upper country' (Jefferson, O. E. D.).

Comfort, in Judges 19.5, '.....the damsel's father said unto his son-in-law, Comfort thine heart with a morsel of bread, and afterwards go your way,' means to strengthen, to support, a meaning which has become obsolete in English, though instances may be found where the biblical sense is revived as in Ayliffe Paring 8: 'Guilty of comforting and assisting the Rebels.'

Conscience, in 1 Cor. 8. 7, 'Howbeit there is not in every man that knowledge: for some with conscience of the idol unto this hour eat it as a thing offered unto an idol; and their conscience being weak is defiled,' means consciousness, knowledge. This sense is not commonly met with now but instances may be found of the biblical use of the word by modern writers, as in Swinburne, *Essays and Studies* (1875), 221: 'The conscience of this sharpens and exasperates the temper of his will.'

Consist means 'exist,' 'remain unchanged' in Col. 1.17: 'And he is before all things, and by him all things consist.' Its present meaning is 'be composed of.' The biblical sense of the word is preserved in 'By whom all things consist' (Berkeley, *Principles of Human Knowledge*, 1, Sec. 145); again in Bushnell's *Natural and Supernatural*, 1 (1864), 31: 'They all consist, come together into system, in Christ.'

Declare now means 'make known,' 'proclaim publicly,' etc. In Gen. 41. 24: 'but there was none that could declare it to me,' its meaning is 'to explain,' 'to manifest,' which has become

very uncommon now. The following is an example where the biblical sense is revived :

Nor track nor pathway might declare
That human foot frequented there.

(Scott, *Lady of the Lake*, 1. XXV.)

Bowels in Phil. 1. 8 : 'For God is my record, how greatly I long after you all in the bowels of Jesus Christ,' means 'compassionate feelings.' Such a use of the word is not common; there are some instances in Carlyle, Frederick the Great, V. XIII. 1. 2 : 'Had idle readers any bowels for him; which they have not,' etc.

Decline in Exodus, 23.2 : 'neither shalt thou speak in a cause to decline after many to wrest judgment' has 'to turn aside,' 'deviate' as its meaning. This sense is preserved in 'the few individuals who ventured abroad... ..when they met, declined on opposite sides to avoid the contact of the other' (Lingard, *History of England*, ed. 4th, XI. 286).

Eminent now means 'exalted,' 'distinguished,' not 'high,' 'lofty,' which it does in Ezekiel 16. 24 : 'That thou hast also built unto thee an eminent place, and hast made thee an high place in every street.' The biblical meaning is preserved in 'upon a stately war horse eminent' (Southey, *Roderick*, XIV); again in

So in the light of great eternity
Life eminent creates the shade of death;

(Tennyson, *Love and Death*.)

Vex is 'to harass,' 'to torment,' in Matt. 15. 22 : 'my daughter is grievously vexed with a devil.' The biblical sense is preserved in

On shore, and when
Through scudding drifts the rainy Hyades
Vext the dim sea :

(Tennyson, *Ulysses*.)

Again in

Let me not vex, with inharmonious sighs,
The silence of that heart's accepted sacrifice.

(Shelley, Adonais, XXV.)

Unequal is 'unjust' in Ezek. 18. 25 : 'yet ye say, The way of the Lord is not equal.' This meaning is found in

Far hence is by unequal Gods remov'd
That man of bounties!

(Pope, Odyssey, XIV. 73.)

Again in

I mete and dole
Unequal laws unto a savage race.

(Tennyson, Ulysses.)

Surely means 'securely' in Prov. 10. 9 : 'He that walketh uprightly walketh surely,' and this meaning occurs in Dryden, Virg. Georg., IV. 585 : 'Thus surely bound, yet.....The slippery God will try to loose his hold.'

Carriage means that which is carried, baggage, and not conveying, transport, etc., as it does to-day, in 1 Sam. 17. 22 : 'And David left his carriage, in the hand of the keeper of the carriage, and ran into the army, and came and saluted his brethren.' An example of the survival of the biblical use may be cited (R. Police, O. E. D.), 'I would greatly have lessen'd my carriage, and my experience also thereby.'

Charity means love in the widest sense in the English Bible as in 'Though I speak with the tongues of men and of angels and have not charity, I am become as sounding brass or a tinkling cymbal, 1 Cor. 13.1. This is not the usual meaning of the word but the biblical sense has not completely disappeared as will be seen from a quotation out of Cowper's Task, II. 507 :—

Can he be strenuous in his country's cause,
Who slights the charity, for whose dear sake
That country, if at all, must be belov'd?

Check means reproof, reprimand, rebuke in Job 20.3, 'I have heard the check of my reproach, and the spirit of my understanding causeth me to answer.' This meaning is preserved in 'He became acquainted with the proctor betimes. But all the checks he received were insufficient to moderate his career' (Smolett, *Peregrine Pickle*, XXI).

In 'Woe unto you, scribes and Pharisees, hypocrites! for ye compass sea and land to make one proselyte; and when he is made, ye make him two-fold more the child of hell than yourselves' (Matt. 23.15), the word *compass* signifies, to pass or move round, which is not its common present meaning. In the following illustration from Kingsley, Misc. 1.123, the biblical sense is preserved but it is almost in the form of a quotation: 'A generation which will compass land and sea to make a proselyte.'

Hardly means 'with difficulty' in Matt. 19.23, 'a rich man shall hardly enter into the Kingdom of heaven.' The biblical sense is found in 'My pulse beat so quickly and hardly that I felt the palpitation of every artery' (Mrs. Shelley, *Frankenstein* IV (1865) 68). But the word now usually signifies 'scarcely.' See *hardly* in H. W. Fowler's *Modern English Usage*.

Instant means 'urgent,' 'importunate' in Luke 23. 23, 'And they were instant with loud voices, requiring that he might be crucified.' The biblical meaning, if somewhat archaic, still exists and examples are not difficult to find: Scott, *Antiquary*, XLI: 'I thought there was no such instant haste.' Trollope, *Belton Est.*, XX. 287, 'He... was more instant in his affection, more urgent in his good office.' (O.E.D.)

Go to in the sense of 'come now' as in Gen. 11.4: 'And they said, Go to, let us build us a city, and a tower whose top may reach unto heaven,' is not at all common now. The Oxford English Dictionary quotes an example from W. Walker's *Idiomatic Anglo-Lat.* (1690) 'Go to! let it be done.'

Halt means 'lame,' 'crippled' in Luke 14.21: 'Go out quickly into the streets and lanes of the city, and bring in hither the poor, and the maimed, and the halt, and the blind.' This meaning occurs in Tennyson's *Guinevere*, 42: 'If a man were halt or hunch'd.'

Joy in the sense of 'to rejoice,' 'to gladden' as in Ps. 21.1: 'The king shall joy in thy strength, O Lord! and in thy salvation how greatly shall he rejoice,' has ceased to be usual now, though the biblical use is occasionally met with in poetry, as for example, in *Rur. Life*, III.VI (1862), 294: 'Back to the scene in which he early joyed.'

An *hungered* meaning 'very hungry,' is an expression which occurs in many passages in the English Bible, such as in Matt. 12.1, 'At that time Jesus went on the sabbath day through the corn; and his disciples were an hungered, and began to pluck the ears of corn, and to eat,' but it is not at all usual now. An example of its use may be given: James, *Brigand*, XXI:I, 'I trust that supper is ready, for I am an hungered.'

Open means 'to explain clearly,' in Acts 17.3, 'opening and alleging, that Christ must needs have suffered, and risen again from the dead,' which has ceased to be its present meaning though, the biblical sense is sometimes revived, as in, 'The force of these expressions I have elsewhere open'd and explained' (*Waterland*, Eight Serm., 233).

Admiration in Rev. 17.6, 'and when I saw her, I wondered with great admiration,' means 'wonder,' 'surprise,' which is not now its usual sense, though the biblical signification has not gone completely out of vogue. The same meaning is found in 'But now the admiration was turned upon another question, viz., what could be the Matter' (*De Foe*, *Robinson Crusoe*, 331); also in 'Phoebe stood gaping in admiration at the sudden quarrel' (*Scott*, *Woodstock*, XXV).

Advisement meaning 'consideration,' occurs in 1 Chr. 12.19, 'for the lords of the Philistines upon advisement sent

him away, saying, "He will fall to his master Saul to the jeopardy of our heads." The word is found in Chaucer :

It is no childes play
To take a wyf without a(d)visement.

(Merch. Ta. 287.)

but has become extremely rare now though we come across instances of its use such as in Burns, 'O gude advisement comes nae ill.'

Amazement in the sense of 'confusion,' 'fear,' 'bewilderment' occurs in 1 Pet. 3.6, 'Even as Sara obeyed Abraham, calling him lord : whose daughters ye are as long as ye do well, and are not afraid with any amazement.' The biblical meaning is found in

The Maids and Matrons, on her awful voice,
Silent and pale, in wild amazement hung.

(W. Collins, Ode to Fear.)

also in 'Do not the French *etonnement* and the English astonishment and amazement point out as clearly the kindred emotions which attend fear and wonder ?' (Burke, *The Sublime and the Beautiful*.)

Approve has, 'to prove,' 'to attest' as its meaning in Rome 2.18, 'And knowest his will, and approvest the things that are more excellent, being instructed out of the law,' which is found also in Gibbon's *Decline and Fall of the Roman Empire*, III. 183, 'The trembling emperor.....solemnly approved the innocence and fidelity of their assassins.'

Debate in Isa. 58.4, 'Behold, ye fast for strife and debate, and to smite with the fist of wickedness,' means 'strife,' 'contention,' rare in recent literature. The biblical sense occurs in the following examples : 'To seal the truce and end the dire debate' (Pope, *Iliad*, III. 321); 'The spirit of debate is opposed to the spirit of love' (J. Parker, *Apost. Life*, I.38).

Honest means 'honourable,' 'comely' in Romans 12.17, 'Provide things honest in the sight of all men.' This use of the word is preserved in Pope, *Iliad*, V, 312 :

Know, 'tis not honest in my soul to fear
Nor was Tydides born to tremble here.

Liking is bodily condition, specially good or healthy condition, in Dan. 1.10, 'for why should he see your faces worse liking than the children which are of your sort?' This sense of the word is preserved in 'To keep it (the child) plump in good liking' (O.E.D.).

Bonnet now usually means a woman's head dress but in Exodus 29.9, 'And thou shalt gird them with girdles, Aaron and his sons, and put the bonnets on them,' it means a man's head dress. The biblical sense is preserved in 'wearing the lawyer's bonnet' (Mrs. Jameson; see O.E.D.).

Abuse in 1 Chr. 10.4, 'lest these uncircumcised come and abuse me,' means, to ill-use or maltreat, to injure or hurt. It now more commonly means misuse, deceive, etc. The biblical signification has grown archaic and is entirely confined to literary uses. As examples the following may be noticed: Fuller, *Worthies*, 'He that abuseth his servants, giving them too little food or sleep.' A more modern example is found in Burke's *Vindication of Natural Society*, 'In this kind of government, human nature is not only abused and insulted but actually degraded.' O.E.D. quotes: 'It is the characteristic of the English drunkard to abuse his wife and family,' as a modern use of the word in its archaic sense.

Addicted themselves means devoted or dedicated themselves in 1 Cor. 16.15, 'Ye know the house of Stephanas, that it is the first fruits of Achaia, and that they have addicted themselves to the ministry of saints.' A similar use of the word is met with in Fuller, *Church History*, III: 'we sincerely addict ourselves to Almighty.' The word has undergone a specialization in its

meaning and is now used only in connexion with evil habits and conditions.

Advise thyself in 1 Chr. 21.12, 'Now therefore advise thyself what word I shall bring again to him that sent me,' means 'consider thyself.' This use of the word did not outlive the 17th century and has now disappeared completely from the vocabulary. But it is not safe to affirm this of any biblical word or expression, because it may be called back again into general use by some writer.

Advise in the sense of 'to consider' is found in the following example: Hales, Gold, Rem. (1688), 99, 'When David advised with himself' (see O.E.D.).

Affect is used in the sense of to seek, to obtain or attain, pay court to, in Gal. 4.17, 'They zealously affect you, but not well; yea, they would exclude you, that ye might affect them.' This use is found in Pope, *Odyssey*, XI. 386, 'The Gods they challenge and affect the Skies.'

Affectioned means, affected, disposed, in Rom. 12.10. 'Be kindly affectioned one to another with brotherly love;' the O.E. D. quotes the following as illustrating the biblical sense of the word: B. Webbe. *Quietnesse* (1657) 107 'to be affectioned to love one another;' 1881 N.T. (Revised) Rom. XII.10, 'Be tenderly affectioned.'

Affinity means relationship by marriage in 1 Kings 3.1, 'And Solomon made affinity with Pharaoh, King of Egypt, and took Pharaoh's daughter.' This meaning is found in 'Hyde was closely related by affinity to the royal house' (Macaulay, *History of England*, Vol. I, Ch. 2).

Afore in Eph. 3.3, 'as I wrote afore in few words' signifies previously, before. This is illustrated in Mut. Fr. III. 286, 'than he had done afore.'

All in Judg. 9. 53, 'And a certain woman cast a piece of mill-stone upon Abimelech's head, and all to brake his skull,' has 'utterly' as its meaning, found in Milton, *Comus*, 380, 'her wings...Were all to ruff'd.'

Aloof in Ps. 38.11, 'My lovers and my friends stand aloof from my sore,' means away, at some distance. This use is found in Macaulay, History of England, 1. 328, 'He quitted his seat, and stood aloof;' Emerson, Sov. Ethics in N. America, Rev. CXXXVI, 406, 'Heat is not separate, light is not massed aloof.' But the word still keeps its place in the common vocabulary, undoubtedly, through the preservative influence of the A.V.

Amiable in Ps. 84.1, 'How amiable are thy tabernacles, O Lord of hosts!' means lovely, worthy to be loved. The biblical meaning is preserved in Addison, Spectator, No. 162, 'We are amiable or odious in the eyes of our Great Judge.'

Astonied is 'astonished' in Job. 17.8, 'Upright men shall be astonied at this, and the innocent shall stir up himself against the hypocrite.' The word is found in Milton 'Amazed, astonied,' P.L., IX, 890, but in later writings it becomes so rare that it is now excluded from the ordinary vocabulary of English words.

Attendance is 'attention' in Tim. 4.13, 'Till I come, give attendance to reading, to exhortation, to doctrine.' This sense of the word has now completely disappeared. An example of its use is quoted out of Owen's Holy Spirit (written in 1674), 'Commands for our Attendance unto such Duties.'

Attent means attentive in 2 Chr. 6.40, 'let thine ears be attent unto the prayer, etc.' This use occurs in

As Judges on the bench more gracious are,
And more attent to the brothers of the bar.

(Dryden, Wife's Tale.)

Avoid has, to retire, escape, withdraw, as its meaning in 1 Sam. 18.11, 'And David avoided out of his presence twice.' The biblical sense is found in

They deemed it hopeless to avoid
The convoy of their dangerous guide.

(Scott, Marmion.)

Bewray in Matt. 26.73, 'thy speech bewrayeth thee,' means to reveal, expose, discover. Such a use is now uncommon but

biblical archaisms are often introduced because of the fine flavour of associations they sometimes possess. The word is found in Mrs. C. Clarke, Shaks. Char. XII.311, 'The mental bias in every writer will casually bewray itself.'

Challenge means to claim, in Ex. 22.9, 'For all manner of trespass, whether it be for ox...which another challengeth to be his.' This meaning is preserved in Johnson, Rambler No. 1, 'A public challenge of honours and rewards.'

Chambering in Rom. 13.13, 'not in rioting and drunkenness, not in chambering and wantonness, not in strife and envying,' means, wanton living, sensuality. This word is not now to be found in the ordinary dictionaries having become obsolete. O.E.D. quotes a few examples of its use but none of them are later than the middle of the 17th century.

Charger in Matt. 14.8, 'Give me here John Baptist's head in a charger,' means a large dish. But the word has nearly gone out of vogue and exists in literature as an archaism. An instance of the biblical use of the word may be given: 'Silver chargers and christening bowls' (Macaulay, Hist. Engl., 113).

Clear means innocent, in Gen. 24.8, 'then thou shalt be clear from this my oath.' The biblical sense occurs in 'Fame is the spur that the clear spirit doth raise' (Milton, Lycidas, 70).

Close in Luke 9.36, 'And they kept it close, and told no man in those days of those things which they had seen,' means secret, unrevealed. The same meaning is found in 'The closest caverns of the grot she sought' (Pope, Odyssey, XII. 421).

Clouts in Jer. 38.11, 'and took thence old cast clouts and old rotten rags, and let them down by cords into dungeon to Jeremiah,' signifies a shred of cloth, a rag. The word is found in the same sense in 'a pair of kid gloves that sat on his great hands like a clout on the pitch fork' (Hall Caine, Son of Hagar, II. XVI).

Coast, in Matt. 8.34, 'they besought him that he would depart out of their coasts,' has the border of a country as its meaning. This meaning has passed out of the ordinary

vocabulary; an example is given out of Milton : ' while I abroad through all the coasts of dark destruction see Deliverance for us all.'

Confound in Jer. 1.17, ' be not dismayed at their faces, lest I confound thee before them,' means to destroy. An example of a similar use of the word is found in Southey, Joan of Arc, 1.73, ' Lest He in wrath confound one.'

Constantly in Acts 12.15, ' She constantly affirmed that it was even so,' means confidently, firmly. This is not now the present sense of the word but it occurs now and then as a biblical archaism as in ' In our American colonies the plantations have constantly followed the sea coast' (Adam Smith, Wealth of Nations, 1.III.21).

Contrite is bruised, crushed, hence humbled and sorrowful in Ps. 51.17, ' a broken and a contrite heart, O God, thou will not dispise.' This meaning survives in ' contrite, bruised, much worn' (Johnson). *Cp.* Kipling's ' contrite heart ' in his famous *Recessional*.

Cumber in Luke 10.40, ' Martha was cumbered about much serving,' is the same as ' encumber.' This word in the same sense is found in ' Body shall encumber soul-fight no more ' (Browning, La Saisiaz, 4).

Delightsome in Mal. 3.12, ' for Ye shall be a delightful land,' signifies delightful. In the 17th century it was in frequent use, now only literary. It is found in Mrs. Browning's Vision of Poets, ' A mild delightful melancholy.'

Deputy is a proconsul, in Acts 13.7, ' which was the deputy of the country, Sergius Paulus, a prudent man.' The word is used in the same sense in ' There was a deputy, that is a proconsul' (Robertson, Serm., Ser. IV).

Describe is to mark out in John 18.4, ' they shall rise, and go through the land, and describe it according to the inheritance of them.' It is found in Milton, P. L., IV, 567, ' I described his way,' and the O. E. D. gives an illustration from Moxon, Mech. Exerc., 126, ' To measure and describe the Ground plot.'

Despite in Heb. 10.29, 'and hath done despite unto the spirit of grace,' means contempt, contumely; so in Longfellow, King Christian, IV :

Receive thy friend, who scorning flight,
Goes to meet danger with despite.

Despitefully in Matt. 5.44, 'pray for them which despitefully use you, and persecute you,' is opprobriously, insolently; so in Yeats, Growth. Comm., 260, 'Members of the reformed faith to use whom despitefully was thought to be doing God a service.' See O. E. D.

Determinate in Acts 2.23, 'being delivered by the determinate counsel and foreknowledge of God,' means, determined upon, fixed. The same meaning is found in Maine's famous definition, 'The Sovereign is a determinate human superior.'

Disposition in Acts 7.53, 'Who have received the law by disposition of angels, and have not kept it,' is appointment, administration, dispensation; so in 'This seemed to me to be a disposition of Providence' (De Foe, Robinson Crusoe).

Duke has its derivative meaning 'a leader,' 'commander,' 'chief,' in Gen. 36.15, 'These were dukes of the sons of Esau;' so in Gibbon, Decline and Fall, XVII, 11.44, 'under their orders thirty-five military commanders were stationed in the Provinces. All these provincial generals were therefore dukes, but no more than ten among them dignified with the rank of counts or companions, a title of honour or rather of favour, which had been recently invented in the court of Constantinople.'

To ear is to plough in Deut. 21.4, 'a rough valley which is neither eared nor sown;' so in Singleton, Virgil, 1.83, 'But if you'll ear the soil for wheaten harvest.'

Edify is 'to build' in Acts 9.31, 'Then had the churches rest throughout all Judaea and Galilee and Samaria, and were edified;' this meaning is preserved in Swift, Tale of a Tub, 'To edify a name and reputation.'

Endue is 'to endow,' 'furnish with,' in Gen. 30.20, 'And Leah said, God hath endued me with good a dowry.' The meaning is found in Scott, Wav., XII, 'The Baron...had endued a pair of Jackboots of large dimensions;' also in Tennyson's Poems, 122, 'Could I...endue...the spring hues of fresh youth.'

Enlarge is to set at liberty in Ps. 4.1, 'Thou hast enlarged me when I was in distress.' This use is illustrated in 'No man, after being enlarged by order of court, can be recommitted for the same offence' (Hume, History of England, V. LXVII. 108).

Ensamble is example in 1 Cor. 10.11, 'Now all these things happened unto them for ensamples;' so in Rossetti's translation of Dante's Vita Nuova, 1 (1874), 81, 'By which ensamples this thing shall be made manifest.'

Ensue is to pursue diligently in 1 Pet. 'let them seek peace and ensue it.' So in Milton, P. L., IX, 977, 'were it I thought death menaced would ensue this my attempt.'

Entreat is to treat, deal with, in Matt. 22.6, 'and entreated them spitefully.' This use is met with in Burton, Scot. Abr., II. 1.62, 'Their authors...spitefully entreated as monomaniacs.'

Equal is fair, equitable, just in Ezek. 18.25, 'Is not my way equal?' So in Robertson, O.E.D., 'proposals of peace which were equal and moderate.'

Fat is a vessel for liquor in Joel. 2.24, 'and the fats shall overflow with wine and oil.' O.E.D. gives an example of the later use of the word, 'The liquor...should stand in the fat about fifteen days' (Bradley).

Fear is an object of fear in Gen. 31.42, 'the fear of Isaac.' In Milton P.L. IX 'His (Satan's) fraud is then thy fear,' the same meaning is found.

Fine is to refine in Job 28.1, 'a place for gold where they fine it.' So in Browning, Pr. Hohenst, 1324, 'Fined and thrice refined i' the crucible of life.'

Frame is 'to contrive' 'manage' in Judg. 12.6, 'For he could not frame to pronounce it right.' This meaning is

found in Cowper, *Odyssey*, 11.226, 'But let us frame effectual means.'

Fray means to scare, frighten away in Deut. 28.26, 'and no man shall fray them away;' so in Shenstone, *Schoolmistress*, 149, 'And other some with baleful spring she frays;' again in Browning, *Easter Day*, XIII. 18 :

My warnings fray
No one, and no one they convert.

Furniture is 'equipment,' 'harness,' in Gen. 31.34, 'Now Rachel had taken the images, and put them in the camel's furniture, and sat upon them.' This use is found in Herbert's *Temple*, *Affliction II*, 'I looked at thy furniture so fine.'

Ghost is spirit in Matt. 27.50, 'yielded up the ghost;' so in Tennyson *In Mem. XCIII*,

Descend, and touch.....
That in this blindness of the frame
My Ghost may feel that thine is near.

Goodman is master of the house in Matt. 20.11, 'they murmured against the goodman of the house;' so in Burns, *Halloween*, XVII,

The auld guidman raught down the pock,
An' out a handfu' gied him.

also, in Macaulay, *Lays of Ancient Rome*, Horatius, lx,

When the goodman mends his armour,
And trims his helmet's plume.

Health, 'saving health' is salvation in Ps. 67.2, 'That thy way may be known upon earth, thy saving health among all nations.' This meaning is found in Harris, *Three Treat.*, III. XI, 'That health, that Perfection of a Social State.'

Lighten is 'to enlighten,' 'illuminate' in Luke 2.22, 'A light to lighten the Gentiles, and the glory of thy people;' so in

Bunyan, *Holy War*, 180, 'Oh! how they were lightened! they saw what they never saw.'

List is 'to please,' 'choose,' 'like' in John 3.8, 'The wind bloweth where it listeth;' so in Scott, *Marmion*, 'when at need Him listed ease his battle-steed.'

Lucre is 'gain,' 'profit,' in 1 Tim. 3.3, 'Not given to wine, no striker, not greedy of filthy lucre.' See Milton, *P.L.*, XII, 511, for the same use of the word :

Who all the sacred mysteries of Heav'n
To their own vile advantages turn
Of Lucre and ambition.

The word is still in use. (See below.)

Lust is 'desire,' 'wish,' 'pleasure' in II Tim. 4.3, 'but after their own lusts shall they heap to themselves teachers;' so in Sedley, *Ant. and Cl.*, 1.5 :

The valiant cannot board, nor coward fly,
But at the lust of the unconstant sky.

Magnifical is 'spendid,' 'stately,' 'sumptuous' in 1 Chr. 22.5, 'The Lord must be exceeding magnifical;' so in A.E. Prince of Joyous Gard, III. 363, 'The sight magnifical beyond desire.'

Meat is 'food' in general in Gen. 1.29, 'and every tree, in the which is the fruit of a tree yielding seed; to you it shall be for meat;' so in Stevenson, *Catriona*, XXI. 253, 'when.....my father and my uncles lay in the hill, and I was to be carrying them their meat.' (See above.)

Mete is 'to measure' in 'with what measure it mete, it shall be measured to you again.' This meaning is found in H. Newman, *Gerontius* Sect., 3, 'Spirits and men by different standards mete the less and greater in the flow of time.'

Minish is the same as 'to diminish' in Ex. 5.19, 'Ye shall not minish aught from your bricks of your daily task.' This meaning occurs in Scott, *Woodstock*, III, 'I may come to

trouble since it may be thought that I have minished their numbers.'

Minister is 'servant,' 'attendant' in Luke 4.20, 'he gave it again to the minister, and sat down.' The biblical sense is preserved in Gibbon, *Decline and Fall*, XXXI. III.206, 'A multitude of cooks and inferior ministers, employed in the service of the kitchens.'

Motions is 'emotions,' 'passions,' in Rom. 7.5, 'For when we were in the flesh, the motions of sins, which were by the law, did work in our members to bring forth fruit unto death;' so in Swift, *Gulliver*, III.1, 'The natural love of life gave me some inward motions of joy.'

Nephew is 'a grandson' in 1 Tim. 5.4, 'But if any widow have children or nephews.' O.E.D. quotes: 'If naturalists say true that nephews are often liker to their grandfathers than to their fathers.'

Observe is 'to treat with respect' in Mark 6.20, 'For Herod feared John, knowing that he was a just man and an holy, and observed him;' so in Richard Grandison VIII. XIX. 107, 'Clementina loves to be punctiliously observed.'

Occupy is 'to trade' in Luke 19.13, 'Occupy till I come.' Now this sense has become uncommon. It has the biblical meaning in 'such as occupied in her fairs with all precious stones' (Fuller, *Pisgah* II. V. 129.)

Pain is 'to strive in pain' in Rev. 12.2, 'and pained to be delivered;' so in Lowell, *Study Windows*, 217, 'Men still pain themselves to write Latin verses.'

Persecute is 'to pursue' in Ps. 7.1, 'save me from all them that persecute me, and deliver me;' so in Dryden, *Virg. George*, 1.416,

With Balearick slings or Gnossian Bow,
To persecute from far the flying Doe.

Pill is 'to strip off the bark,' 'to peel,' in Gen. 30.37, 'and pilled white strakes in them, and made the white appear which

was in the rods;' so in Butler, 'If you do but pill the Bark off him he deceases immediately.' (See O.E.D.)

Port is 'a gate' in Neh. 2. 13, 'I went out.....to the dung port and viewed the walls of Jerusalem.' Milton uses it in the same sense, 'And from their Ivory Port the Cherubim Forth issuing,' etc., (P. L., IV. 778).

Power is 'an army' in 2 Chr. 32. 9, 'he himself laid siege against Lachish, and all his power with him;' so in Wordsworth, Waggoner, l. 213, 'His bones, and those of all his Power slain her in a disastrous hour.'

Prevent is 'to go before,' 'anticipate,' 'precede,' in 1 Thess. 4. 15, 'The coming of the Lord shall not prevent them which are asleep.' This use is illustrated in 'She led the Lady to a seatprevented each desire' (Russian Fugitive, l.V).

Proper is 'comely,' 'fair' in Heb. 11. 23, 'because they saw he was a proper child;' so in Scott, Quentin Durward, II, 'By St. Anne! but he is a proper youth.'

Purchase is 'to gain,' 'win,' 'acquire,' in 1 Tim. 3. 13, 'well purchase to themselves a good degree;' the meaning is found in 'To go any where that the advantage of trade or hopes of purchase should guide us' (De Foe, Voyage Round the World, 3).

Quick means 'living' in Acts 10. 42, 'the Judge of quick and dead;' so in 'Where the quick heart of the great world doth pant' (Shelley, Witch of Atlas, IX). (See above.)

Rent is the old form of 'to rend,' 'to tear' in Jer. 4. 30, 'though thou rentest thy face with painting.' This meaning is preserved in 'Thy confed'rate Dame shall rent her Petticoats to rags, And wound her legs with every Bri'r' (Swift).

Reprove in Job. 6. 25, 'what doth your arguing reprove,' means 'to disprove,' 'prove to be false;' this meaning is seen in 'This confident Assertion of Descartes is fully examined and reproved by.....Mr. Boyl' (O. E. D.).

Savour is 'to relish' in 'thou savourest not the things that be of God;' so in 'That Prow, wherewith Gluttons used to

defend themselves, to wit, that which savours, is good and nourisheth' (G. Herbert).

Secure has its derivative sense, 'free from care,' in Judg. 8. 11, 'for the host was secure;' so in 'youth's lightning flash of joy secure pass'd seldom o'er His spirit' (Keble Christian Year, St. Philip and St. James, 25).

Sincere is 'pure' in 1 Pet. 2. 2, 'desire the sincere milk of the word.' This meaning is revived in 'when sincere Christianity was propounded in all its native elements' (G. S. Faber Sacr. Calend. Prophecy, 111. 209).

Skill is 'to understand' in 1 King 5. 6, 'there is not among us any that can skill to hew timber;' so in 'I never could skill him' (Carr, Craven Gloss).

Sometime is 'formerly' in 1 Pet. 3. 20, 'which sometime were disobedient;' so in 'Negro Woman sometime the property of His became free.' (See O. E. D.).

Speed is 'success,' 'fortune' in Gen. 24. 12, 'send me good speed this day;' so in Burns, Epistle to Young Friend, XI, 'In ploughman's phrase, God send you speed.'

Stablish is the same as 'establish' in 2 Sam. 7. 13, 'I will stablish the throne of his kingdom for ever;' so 'in Heaven's eternal base, whereon God's throne is established' (O. E. D.).

Stagger is 'to stumble,' 'to hesitate,' in Rom. 4. 20, 'He staggered not at the promise of God through unbelief.' This is also the meaning in 'They stagger at the Double representation, at the vote by the Head' (Carlyle, Fr. Rev., 1. IV. 1).

Straw is the same as 'strew' in Matt. 25. 24, 'gathering where thou hast not strawed.' This use is found in

We have strawed our best.....

To the shark and the shearing gull.

(Kipling, Seven Seas, 8.)

Tale is 'number,' 'a total,' in Ex. 5. 18, 'Ye shall deliver the tale of bricks;' so in Burke, Fr. Rev., 196, 'He will hardly be able to make up his tale of thirty millions of souls.'

Temptation is 'trial' in Deut. 4. 34, 'take him a nation from the midst of another nation, by temptations, by signs, and by wonders.' This use is preserved in the same passage of the Revised Version of 1885.

Thought is 'great anxiety,' 'excessive care' in Matt. 6. 25, 'Take no thought for your life.' O. E. D. illustrates a modern use of the word in the biblical sense by a quotation from the Cornhill Magazine of 1895, p. 569, 'so many bairn's things were just a cumber and thocht to me.'

Tutor in the sense of 'a guardian' is found in Gal. 4. 2, 'But is under tutors and governors until the time appointed of the father;' so in 'If the father.....hath not provided a tutor, to govern his son during his minority.....the Law takes care to do it' (Locke, Govt. II. VI, Sect. 59).

Untoward is 'obstinate,' 'perverse,' in Acts 2. 40, 'Save yourself from this untoward generation;' so in Jane Austen Mansfield Park, II, 'A most untoward gravity of deportment;' also in

The devil!—I'm loth to do him wrong,
It might be some untoward saint.

(Byron, Mazeppa, VIII.)

Very in John 7. 26, 'Do the rulers know indeed that this is the very Christ?' means 'true,' 'real,' 'actual;' the use is found in 'He had spoken the very truth, and transformed it into the veriest falsehood.'

Without is 'beyond' in 2 Cor. 10. 13, 'But we will not boast of things without our measure;' this sense exists in 'one whose sources of happiness are without him,' Sparrow, (O.E.D.).

Worship is 'honour,' 'reverence' in Luke 14. 10, 'then shalt thou have worship in the presence of them that sit at meat with thee;' so in:

It will be to thy worship, as my knight,.....
To see that she be buried worshipfully.

(Tennyson, Elaine, 1318.)

CONCLUSION.

An attempt has been made in the foregoing pages to show the nature and scope of the linguistic influence of the English Bible. A connected aspect of the subject has been but slightly touched upon. It is, however, impossible to do justice to my thesis if no effort is made to examine the ideas which have become a common possession of the English-speaking world on account of its familiarity with the Bible, for the ideas and the language in which they are clothed are inextricably bound up with one another and to separate the two is not always a practical proposition. The numerous examples which have been given above will serve to indicate the difficulty in the matter and it must be admitted that no strict separation between the linguistic and literary influences can be observed in practice as the borderland between the two often disappears, leaving only a rough standard of the lines of investigation to follow.

Mr. Laurie Magnus takes the four words—man, woman, bread, death, to examine the associations they raise in our minds in the light of the following biblical passages to show that ‘we think and act *more Hebraico* without conscious imitation’ :—

‘When I consider thy heavens, the work of thy fingers, the moon and the stars, which thou hast ordained ; what is man that thou art mindful of him? and the son of man, that thou visitest him?’—Ps. 8. 3, 4.

Man being in honour abideth not, Ps. 49. 12.

Woman, Prov. 31.

Man doth not live by bread only, Deut. 8. 3.

Thou feedest them with the bread of tears, Ps. 80. 5.

If ought but death part thee and me Ruth, I. 17.

The valley of the shadow of death, Ps. 22.4.

The same authority summarises his position in these words. ‘Our point is that we think in Hebrew images. There is a Hebrew background to our common mind’ (Legacy of Israel in Modern Literature, edited by Bevan and Singer, Oxford, 1927, p. 488).

Apart from a few words (*e.g.*, camel, shibboleth, rabbi, etc.) taken from Hebrew, Hebraism as a mode of expression consists in the way of forming the superlative (*e.g.*, heaven of heavens, 1 Kings 8.27), in the use of certain kinds of metaphor (*e.g.*, the eye of the needle, potter's vessel, eat the bread of wickedness and drink the wine of violence, Prov. 4. 177 ; bread of adversity and water of affliction, Isaiah 30. 20; walk in mine integrity, Ps. 26. 11 ; walk uprightly, Ps. 84. 11 ; shake off the dust from feet, Lk. 9. 5, etc.), and in the use of parallelism which forms a marked feature of Hebrew poetry. It is rare in modern English but examples of parallelism may be seen in Alexander's Feast by Dryden, and elsewhere.

It is needless to repeat here that the language of everyday life has been deeply coloured by the biblical vocabulary. Not only are whole sentences borrowed from the Bible but examples of the use of single words taken from the same source are not much less frequent, *e.g.*, helpmate, scapegoat, pit, etc. In many cases the meaning of a proper name has become generalised and the word is then treated as a common noun. Examples which abound in English cannot be exhausted and only a few need be given :— Goshen, place of light or plenty, Gen. 45.10, etc.; a Daniel, upright judge, Dan. 1-4; a Nimrod, great hunter, Gen. 10.8, 9 ; Ishmael, outcast, Gen. 16.12, Benjamin, darling, Gen. 42. 4, etc. Now and then biblical characters are made to typify contemporary men and women, as in Dryden's Absalon and Achitophel, mostly to secure a satirical effect. The veil thus thrown over persons gives the writer an opportunity to sketch his characters in which allusiveness gives point to ridicule. In addition to this a vast number of names have come from the Bible and in this respect English people are as notable as others who profess Christianity.

Many obsolete or obsolescent words have received a fresh lease of life from the accident of a mention in the Bible, but, in general, they belong to the dignified language of rhetoric and have, for all practical purposes, passed out of the ordinary speech.

More frequently still changes have occurred in the meanings of words since 1611 and the English Bible has acted, to a considerable extent, as a conservative force leading to the revival of old meanings by recent writers. It will be out of place here to comment on the fitness or other of such revivals. We can only record this fact as a phenomenon of frequent occurrence. A complete chapter has been devoted to an examination of changes of meaning in English words since the date of the Authorised Version of the Bible.

A number of grammatical forms owe their preservation to the study of the Bible. Of them the most important is the 'th' form in the third person singular number. Once common both in prose and poetry, it fell into disuse and would have disappeared from the language had there been no English Bible to keep its use fresh in memory. In poetry the 'th' form still keeps its ground. In the Bible 'shall' and 'will' are not always used according to the modern idiom and 'his' is still the common form for 'its.' Double superlatives occur in the Bible but except for 'lesser lights' and two or three other phrases, they are unknown in modern speech.

The English language has been enriched by many expressive figures taken from the Bible. The prodigal son, the wolf in sheep's clothing, salt of the earth, thorns in one's sides, potter's vessel, to see eye to eye and a hundred such other figures have become a part of the common language. Besides these the phrases which have come from the Bible are so numerous that the examples in the foregoing pages are scarcely enough to give more than a bare idea about their number and variety.

A remark or two may be added here on these borrowings. They are in the first place no longer treated as borrowings and have become part and parcel of the language itself. Something of the protean quality of life has entered them and they are as freely used to move to tears as to laughter. The heritage of the Bible in English is an infused element in the language

and it often starts up from a word, metaphor or phrase, sometimes even from the turn of a sentence. Whatever may be said on the subject much will still remain to be said and investigated. An element so thoroughly permeating the language can hardly be exhaustively studied. Some broad facts may be stated and tendencies indicated, but beyond that we can scarcely go further.

The question of the importance of the English Bible as a standard of pure English, preserving the language from deterioration has not been gone into, and indeed this does not form an essential element of the task which I have imposed on myself. It is, however, undoubtedly true that the Bible has kept a high standard of excellence before the writers of English and has prevented them from coming under any debasing influence. In this way the progress of the language has been secured. Many eminent critics have expressed the opinion that the English language has not achieved a higher excellence than is to be met with in the pages of the Bible. This opinion has never been challenged.

APPENDIX

A SHORT HISTORICAL OUTLINE OF THE A. V.

The King James's Version of the Bible, known in the English-speaking world as the Authorised Version, was never formally recognised as such either by Parliament or by any Church Council, and the universal acceptance it has won is entirely the result of its high merits. The linguistic importance of the Jacobean revision cannot be justly estimated except through an examination of the series of English translations which led up to it, a brief survey of which is here attempted with the purpose of emphasising the unique qualities which have endeared the Authorised Version to all.

Metrical paraphrases of the Bible from the Latin Vulgate were made before the invention of printing, and Caedmon is the most outstanding of the authors of this class. Bede, who belongs to the 8th century, wrote largely in Latin and the little work he did in the vernacular, now lost, was on the Gospel of St. John. Aelfric produced a translation of the Old Testament in the 10th century and after him, for three centuries or so, there was no English rendering of the Bible owing to the changed conditions brought about by the Norman conquest.

To the influence of Wycliffe we owe the earliest complete renderings of the Holy Scriptures into English, the first version appeared in 1382 and a revised one was brought out four years after his death in 1388 by John Purvey. Wycliffe did not exercise any considerable influence upon the subsequent translations of the Bible. But there are certain words and phrases in the Jacobean revision which, when they have not been taken directly from Wycliffe, have usually come through Tindale. An instance may be quoted to illustrate this. John IV. 14's 'well of water

springing up into everlasting life,' comes through Tindale from Wycliffe.

A great intellectual ferment was produced in England by the advent of the New Learning whose gift in England was a translation of the Bible from the original Greek and Hebrew. The work was performed by Tindale with whom, to quote Dr. Wescott 'the history of our present English Bible begins' (History of English Bible, p. 25). There is practical unanimity among scholars that the A. V. embodies much of the work of Tindale (Cambridge History of English Literature, Vol. IV, p. 38). To Tindale the English language owes many extremely useful and expressive words, such as, peacemaker, long-suffering, broken-hearted, beautiful, and elder (in an ecclesiastical sense). Scapegoat was a mistranslation of Tindale's and the phrase 'greedy of filthy lucre' was invented by him. Though originally innocent in meaning 'lucre' has now acquired a sinister significance through its being associated with the word 'filthy' in the Bible, from which the adjective 'lucrative' is free.

Specimen from Tindale's Version.

(Mark 15. 1-9.)

'And anon in the dawninge heelde the hye prestes a counsell with the seniours, and the scribes, and also the whole congregacion, and bounde Jesus, and ledde hym awaye, and delyvered hym to Pilate. And Pilate axed, Arte thou the Kynge off the Jews? And he answered and sayde unto hym, Thou sayest yt. And the hye prestes accused hym off many thynges. Pilate axed him agayne, sayinge, Answerest thou nothyne? Beholde, howe many thynges they lay unto thy charge, Jesus yett answered never a worde so that Pilate marveled. Att the feast Pilate was wont to delyvre att their pleasure a personer, whomsoever thy wolde desyre. And there was one named Barrabas which laye bounde with them that caused insurrection committed murther. And the people called unto hym, and began to desyre off hym,

according as he had ever done unto them. Pilate answered them, and sayd, Wyll ye that I loose unto you the Kynge off the Jewes?’

Miles Coverdale, an Augustinian friar, the first to bring out a complete Bible in English, enriched the language by some beautiful combinations of words, the more important of which are noted below :—loving-kindness, tender mercy, bloodguiltiness, noonday, morning-star and kindhearted. Coverdale did not go to the original in Greek and Hebrew but translated from the Latin Vulgate. His work was completed in 1537 but ‘the first glance at Coverdale will show that the miraculous beauty of 1611 Version owes but little to him’ (Saintsbury, History of English Prose Rhythm, p. 149).

Specimen out of Miles Coverdale.

(Matt. 3. 1-4.)

‘In those dayes John the Baptyst came and preached in the wilderness of Jury, saynge : Amende yourselves, the kyndome of heuen is at honde. This is he, of whom it is spoken by the prophet Esay, which sayeth : the voyce of a cryer in the wilderness, prepare the Lordes waye, and make his paths straight. This Jhon had his garment of camels heer, and a lethren gardell aboute his loynes. Hys meate was locustes and wylde hony.’

Matthew’s Bible, mainly a compilation from Tindale and Coverdale, was the result of a commercial enterprise by two London book-sellers, Richard Grafton and Edward Whitchurch. Matthew’s Bible is noteworthy for the very large amount of marginal commentary which it contains. Taverner’s Bible, published two years later, is a private revision of Matthew’s and is comparatively unimportant except for the consistent effort of its translators to substitute words of native origin for the foreign experssions of his predecessors. The Great Bible issued in 1539 was planned by Thomas Cromwell and published in Paris under the supervision of Coverdale and Grafton. The

following year a second edition was brought out with a long preface by Cranmer, 'having the important addition 'this is the Byble appoynted to the Vse of the churches.'

Specimen out of the Great Bible, 1539.

(Matt. 3. 1-4.)

'In those days came John the Baptyst, preaching in the wylderness of Jewry, saying, Repent of the life that is past, for the kyndome of heauen is at hande, For this is he, of whom the prophet Esay spake which sayeth, the Voyce of a Cryer in the wylderness, prepare ye the way of the lorde; make hys pathes straught. Thys John had hys garment of camels heer and a gyrdel of a skynne aboute his loynes. His meate was locustes and wylde hony.'

During the reign of Queen Elizabeth a need was felt for doing away with the strong ecclesiastical bias which marked the Genevan Bible, otherwise an excellent translation. Archbishop Parker devised a plan for a revision of Cranmer's Bible by the joint labour of a number of learned men, mostly Bishops, and the result was the publication of the Bishops' Bible in 1568. Two other versions of the Bible, the Rheims New Testament in 1582 (from the Vulgate) and the Douai Old Testament in 1610, also from the Vulgate, were published before the date of the Jacobean revision. 'A single Epistle furnishes the following list of Latin words which King James's translators have taken from the Rhenish Testament: Separated (Rom. 1.1.), Consent (Mg.), (1.32), Impenitent (ii.5), Approvest (11.18), Propitiation (iii.26), Remission Grace (4.4), Glory in tribulation (5.3), Commendeth (5.8), Concupiscence (7.8), Revealed (8.18), Expectation (8.19),' etc. (Bishop Westcott, English Bible, p. 253).

James I organised a conference of the High Church and the Low Church parties for determining 'things pretended to be

amiss in the church' in January, 1604. Dr. Reynolds, President of Corpus Christi College who was the moving spirit of the Low Church Party, quoted several instances of mistranslation from the authorised Bibles, in the course of a discussion on the subject of bringing out a version of the Bible which shall be comparatively free from errors. James 'wished that some special pains should be taken for one uniform translation—professing that he could never yet see a Bible well translated in English' (Westcott, p. 108). The conference was informal in character and in actual performance it did not go further than an admission of the necessity of a revision. The king showed greater energy in the matter than any of the scholars and in July of the same year James wrote to Bancroft, then the Archbishop of Canterbury, to the effect that he had 'appointed certain men numbering four and fifty for the translating of the Bible.' But the translators are only 47 in number according to the list we possess and they did not set about their work earnestly till 1607. Some of the translators were Professors of Greek or Hebrew either at Oxford or at Cambridge and others were already well-known for their scholarship. This Board of Translators were split up into committees, each entrusted with the translation of one of the several books of the Old or the New Testament.

The Authorised Version derived great help from the translations which preceded it and from the keen controversy about the meaning of particular passages to which they often gave rise. Every doubtful word was called into question till a better could be found and this proved to be a source of considerable advantage to the translators of the Authorised Version. The translators acknowledge their indebtedness to their predecessors in their preface: 'Truly, good Christian reader, we never thought, from the beginning, that we should need to make a new translation nor yet to make of a bad one a good one * * * * but to make a good one better, or out of the good ones one principal good one, not justly excepted against that hath been our endeavour, that our mark.'

Quiller-Couch, in his *Art of Reading*, takes the following as an indication of the remarkable achievements of the translators of the Authorised Version : ' And God said, Let there be light,' ' A sower went forth to sow,' ' The Kingdom of Heaven is like unto leaven which a woman took,' ' The wages of sin is death,' ' The trumpet shall blow,' ' Jesus wept,' ' Death is swallowed up in victory.' As an example of the beauty of expression, to be found in the English Bible, an oft-quoted verse from the Song of Deborah (Judges, 5.27) may be referred to : ' At her feet he bowed, he fell, he lay down; at her feet he bowed, he fell; where he bowed, there he fell down dead!' To the Sermon of the Mount perhaps the highest tribute is the fact that a large portion of the civilised world borrows its language whenever the need arises of expressing a lofty ideal.

Some verses are given below out of the 60th chapter of Isaiah praised by Prof. Saintsbury as marking one of the highest points of English prose; ' Arise, shine; for thy light is come, and the glory of the Lord is risen upon thee. For, behold, the darkness shall cover the earth, and gross darkness the people: but the Lord shall arise upon thee, and his glory shall be seen upon thee. And the Gentiles shall come to thy light, and kings to the brightness of thy rising.'

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সাপাত্তিক পদের ব্যাখ্যা

৯

চণ্ডীদাস কহে তুমি সে গুরু ।
তুমি সে আমার কলপতরু ॥
যে প্রেম-রতন কহিলে মোরে ।
কি ধন রতনে ভূষিব তোরে ॥
ধন জন দারা সোঁপিনু তোরে ।
দয়া না ছাড়িহ কখন মোরে ॥
ধরম করম কিছু না জানি ।
কেবল তোমার চরণ মানি ॥
এক নিবেদন তোমারে কব ।
মরিয়া দৌহেতে কিরূপ হব ॥
বাংশুলী কহিছে কহিব কি ।
মরিয়া হইবে রজক-বি ॥
পুরুষ ছাড়িয়া প্রকৃতি হবে ।
এক দেহ হয়ে নিত্যেতে যাবে ॥
চণ্ডীদাস প্রেমে মূর্চ্ছিত হইলা ।
বাংশুলী চলিয়া নিত্যেতে গেলা ॥

ব্যাখ্যা

সাহিত্যপরিষদের পদাবলীতে এই পদটি রামীর উক্তির পরে ৭৭৩ নং পদরূপে স্থাপিত হইয়াছে; ইহাতে প্রথমতঃ মনে হয় যে চণ্ডীদাস এই কথাগুলি রামীকে উদ্দেশ করিয়া বলিয়াছিলেন। কিন্তু আলোচ্য পদটির ১১শ পঙক্তিতে দেখা যায় যে বাংশুলী চণ্ডীদাসের প্রশ্নের উত্তর দিতেছেন; অতএব ১ম-১০ম

পঞ্জিক্ত পর্য্যন্ত বাণুলীর প্রতি চণ্ডীদাসের উক্তি, তৎপরে বাণুলীর উত্তর এই ভাবেই পদটিকে গ্রহণ করিতে হইবে। বাণুলীদেবী চণ্ডীদাস ও রামীকে সহজ ভজন সম্বন্ধে যে উপদেশ দিয়াছেন, তাহা ১ম-৮ম সংখ্যক পদে আলোচিত হইয়াছে। এই উপদেশের জন্য চণ্ডীদাস এখন বাণুলীর প্রতি কৃতজ্ঞতা প্রকাশ করিতেছেন, ইহা বলাই পদকর্তার উদ্দেশ্য।

পং ৯ম-১৪শ। কৃতজ্ঞতা-প্রকাশের পরে চণ্ডীদাস জিজ্ঞাসা করিতেছেন—
“মরিয়া দৌহতে কি রূপ হব?” প্রেমের জন্য এই যে মরা, ইহার সম্বন্ধে ৫ম পদের ব্যাখ্যায় (৬৮-৭০ পৃঃ দ্রষ্টব্য) কিঞ্চিৎ আলোচনা করা হইয়াছে, তথাপি প্রয়োজন-বোধে এখানে আরও কিছু বলা হইল। সহজ সাধনার নিয়ম এই যে ইহাতে পুরুষ মরিয়া প্রকৃতিস্বরূপ হইবে। অনেক সহজিয়া গ্রন্থেই এই রীতির উল্লেখ দৃষ্ট হইয়া থাকে, যথা—

আপনি পুরুষ

প্রকৃতি হইবে

প্রকৃতি রতি না করে।

রসসার।

এইভাবে পুরুষ যখন প্রকৃতি হয়, আর প্রকৃতি যখন রতি পরিত্যাগ করে, তখনই “দৌহার” মরণ হয়। এই কথাই আলোচ্য পদमध्ये বলা হইয়াছে। এই অবস্থা না হইলে রাগ জন্মিতে পারে না—

স্বভাব প্রকৃতি হৈলে তবে রাগরতি।

অমৃতরত্নাবলী।

এবং

প্রকৃতি আশ্রয় বিনে প্রেম নাহি হয়।

রত্নসার।

অতএব সহজিয়া সাধক—

আপনি প্রকৃতি হবে আনুকূল্য করি।

রত্নসার।

এবং

প্রকৃতি হইয়া করে প্রকৃতি সেবন।

নিগূঢ়ার্থপ্রকাশাবলী।

পুরুষের এই যে প্রকৃতিভাব, ইহা সহজিয়াদের মনগড়া কথা নহে ; কবি, দার্শনিক সকলেই ইহার প্রয়োজনীয়তা স্বীকার করিয়াছেন। রবীন্দ্রনাথ তাঁহার “পূর্ণতা” শীর্ষক কবিতায় লিখিয়াছেন—

আপনার মাঝে আমি করি অনুভব
পূর্ণতার আজি আমি। তোমার গৌরব
মুহূর্ত্তে মিশায়ে তুমি দিয়েছ আমাতে।
হোঁয়ায়ে দিয়েছ তুমি আপনার হাতে
মৃত্যুর পরশমণি আমার জীবনে।
উঠেছ আমার শোকযজ্ঞ-হতাশনে
নবীন নিশ্চলমূর্ত্তি,—আজি তুমি, সতি,
ধরিয়াছ অনিন্দিত সত্যের জ্যোতি,—
নাহি তাহে শোক, দাহ, নাহি মলিনিমা—
ক্লান্তিহীন কল্যাণের বহিয়া মহিমা—
নিঃশেষে মিশিয়া গেছ মোর চিত্ত সনে।
তাই আজি অনুভব করি সর্বমনে—
মোর পুরুষের প্রাণ গিয়াছে—বিস্তারি’
নিত্য তাহে মিলি গিয়া মৃত্যুহীন নারী।

আবার প্রেমনেত্রে দেখিলেও দেখা যায়—

শুধু একা পূর্ণ তুমি, সর্ব তুমি, বিশ্বের ঐশ্বর্য্য
তুমি, এক নারী, সকল দৈত্তের তুমি
মহা অবসান, সকল কন্দের তুমি বিজ্ঞান রূপিণী।

চিত্তাঙ্গদা।

তন্ময়ের দিক্ দিয়া দেখিতে গেলে বলা যাইতে পারে যে মানুষের “দেহা-
ভিমান”, “প্রমত্ততা” বা “ত্রিগুণ-বশীভূত অবস্থাই” পুরুষ-ভাব। এই সকল
পরিত্যাগ না করিলে ধর্ম্মজগতে উন্নতি লাভ করা যায় না। ভগবান বলিয়াছেন—

যদা তে মোহকলিলং বুদ্ধিব্যতিরিক্তম্ভি।

তদা গন্তাসি নিবৈদং শ্রোতব্যন্ত শ্রতন্ত চ ॥

গীতা, ২।৫২।

অর্থাৎ যখন তোমার বুদ্ধি দেহাভিমান-জনিত মোহ পরিত্যাগ করিবে, তখন তুমি শ্রোতব্য ও শ্রুতার্থের বৈরাগ্য প্রাপ্ত হইবে। ভাগবতেও (৫।১১।৪) আছে—যাবৎ পুরুষের মন সত্ত্ব, রজঃ বা তমোগুণের বশীভূত থাকে, তাবৎ পর্য্যন্ত তাহা নিরঙ্কুশ হইয়া জ্ঞানেন্দ্রিয় ও কর্মেন্দ্রিয়-দ্বারা পুরুষের ধর্ম্ম অথবা অধর্ম্ম বিস্তার করে, কিন্তু নিগুণ হওয়াই পরম পুরুষার্থ। অতএব মনকে গুণাতীত করিতে হইবে, ইহাই প্রকৃতি-ভাব। ভারতের উপাখ্যানে “স্বাং প্রকৃতিং ভজিষ্যসীতি” উক্তির ব্যাখ্যায় শ্রীধরস্বামী বলিয়াছেন—“প্রকৃতিং অপ্রমত্ততাম্” (ভাগবতের ৫।১০।৯ শ্লোকের ব্যাখ্যা দ্রষ্টব্য)। অতএব প্রমত্ততাই পুরুষভাব, ইহা পরিত্যাগ করিতে হইবে। এজন্ত সাধনার প্রয়োজন হয়, কারণ পুরুষদিগের আপনা হইতে জ্ঞান, ভক্তি বা বৈরাগ্য কিছুই হইতে পারে না। (ভাগবত, ৩।৭।৩৯)। আবার ইহাও ঠিক যে পুরুষের যাহা কিছু পুরুষত্ব আছে তৎসমুদায়ই কৃষ্ণানুকম্পিত (ভাগবত, ১০।৮৯।৩৩)। এই ধারণা বাঁহার মনে বদ্ধমূল হইয়াছে, তাঁহার অহঙ্কার করিবার কিছুই থাকে না, তাঁহার পুরুষ-ভাব চলিয়া যায়। এই জন্তই চরিতামৃতে বলা হইয়াছে—

অতএব গোপীভাব করি অঙ্গীকার।

রাত্রিদিনে চিন্ত রাধাকৃষ্ণের বিহার ॥

মথ্যের অষ্টমে।

প্রেম ও দর্শনের দিক্ দিয়া প্রকৃতি-তত্ত্ব আলোচিত হইল। এই সকল তত্ত্বই সহজিয়ারা নানাভাবে প্রচার করিয়াছেন, যথা—

লোভ, মোহ, দম্ব আদি ত্যাগ করিবে।

গোপী সঙ্গে গোপী হৈলে কিশোরী পাইবে ॥

রাগসিদ্ধকারিকা।

নির্বিকার না হইলে যাইতে না পারে।

বিকার থাকিতে গেলে যাবামাত্র মরে ॥

অমৃতরসাবলী।

নির্বিকার না হইলে নহে প্রেমোদয়।

অমৃতরসাবলী।

পঞ্চভূত আত্মাসহ পশিতে না পারে।

তমোগুণ হাথি সেই করয়ে সংহারে ॥

দেহনির্ণয়গ্রন্থ ।

তিমির অন্ধকার

যে হইয়াছে পার

সহজ জেনেছে সে । ইত্যাদি । চণ্ডীদাস, পদ নং ৭৯৩।

ঘোর তাত্ত্বিক সাধনায় এই প্রকৃতি-ভাবেরও একটা বিশেষ অর্থ আছে। সে সম্বন্ধে ইতিপূর্বের ৭০ পৃষ্ঠায় এবং ৮ম পদ-ব্যাখ্যায় (“ব্যভিচারীর” ব্যাখ্যা দ্রষ্টব্য) আলোচনা করা হইয়াছে। অন্যান্য সহজিয়া পদেও এই রীতির উল্লেখ দৃষ্ট হয়, যথা—

প্রেমের পীরিতি

অতি বিপরীতি

দেহরতি নাহি রয় ।

প্রকৃতি প্রভাবে

স্বভাব রাখিবে

এ কথা কহিতে ভয় ॥

পুরুষের রতি

শূন্য দিয়া তথি

প্রকৃতি রসের অঙ্গ ।

প্রকৃতি হইয়া

পুরুষ আচরে

করিবে নারীর সঙ্গ ॥

চণ্ডীদাসের পদাবলী, পরিশিষ্ট, পদ নং ২ ।

নিষ্কামী হইয়া

রাখা রতি লঞা

একান্ত করিয়া রবে ।

তবে সে জানিবে

দেহ রতি শূন্য

প্রকৃতি জানিতে পাবে ॥

ঐ, পদ নং ৩।

ভাবার্থ:—চণ্ডীদাসের প্রশ্ন ছিল এই যে, তাঁহারা উভয়ে (অর্থাৎ চণ্ডীদাস এবং রামী) মরিয়া কি অবস্থা প্রাপ্ত হইবেন। তদুত্তরে বাণ্ডুলী দেবী একমাত্র চণ্ডীদাসকেই লক্ষ্য করিয়া বলিলেন—“তুমি মরিয়া রজক-কণ্ঠার রূপে প্রাপ্ত হইবে।” তৎপরে ইহা আরও স্পষ্ট-রূপে ব্যাখ্যা করিবার উদ্দেশ্যে তিনি বলিতেছেন,—“তুমি পুরুষ-ভাব পরিত্যাগ করিয়া, প্রকৃতি-ভাব গ্রহণ

করিবে। তখন তোমাতে আর রামীতে কোনই প্রভেদ থাকিবে না, এবং এইরূপে উভয়ে একরূপত্ব প্রাপ্ত হইয়া নিত্যাত্মা পরম ধামে গমন করিবে।” এখানে স্পষ্টই দেখা যাইতেছে যে চণ্ডীদাস ও রামীর নাম ব্যবহার করিয়া পুরুষ ও প্রকৃতি-তত্ত্ব ব্যাখ্যাত হইয়াছে। “চণ্ডীদাস মরিয়া রজক-বি হইবে” অর্থাৎ “পুরুষ ছাড়িয়া প্রকৃতি হইবে,” ইহা বাণুলীরই উক্তি। অতএব চণ্ডীদাস এবং রজক-বি বা রামী এখানে উদ্দেশ্য-সাধক সংজ্ঞা মাত্র; ধর্ম্মতত্ত্ব-ব্যাখ্যায় এই সংজ্ঞাদ্বয় প্রতীকরূপে ব্যবহৃত হইয়াছে। এখানে ইহাদের প্রয়োগ-মূলক আর কোন সার্থকতা নাই।

একদেহ ইত্যাদি:—৫২শ পৃষ্ঠায় ব্যাখ্যা দ্রষ্টব্য।

নিত্য:—১ম পদের ব্যাখ্যা দ্রষ্টব্য।

১০

এই সে রস নিগূঢ় ধন্য ।
 ব্রজ বিনা ইহা না জানে অণ্য ॥
 দুই রসিক হইলে জানে ।
 সেই ধন সদা যতনে আনে ॥
 নয়নে নয়নে রাখিবে গীরিতি ।
 রাগের উদয় এই সে রীতি ॥
 রাগের উদয় বসতি কোথা ?
 মদন মাদন শোষণ যথা ॥
 মদন বৈসে বাম নয়নে ।
 মাদন বৈসে দক্ষিণ কোণে ॥
 শোষণ বাণেতে উপানে চাই
 মোহন কুচেতে ধরয়ে ভাই ।
 স্তম্ভন শৃঙ্গারে সদাই স্থিতি ।
 চণ্ডীদাস কহে রসের রতি ॥

ব্যাখ্যা

পং ১—২। ইহার ব্যাখ্যা ৮ম পদের টীকায় বিস্তৃত ভাবে করা হইয়াছে। বঙ্গীয় বৈষ্ণবগণ ব্রজভাবে উপাসনাকেই প্রাধান্য দিয়াছেন, সহজিয়ারাও তাঁহাদের মতের অনুবর্তী হইয়া ধর্ম-ব্যাখ্যায় ব্রজ, রাধা, কৃষ্ণ প্রভৃতি শব্দ ব্যবহার করিয়াছেন। ইহাতে তাঁহাদের বৈষ্ণব সম্পর্কই ধরা পড়ে।

পং ৩—৪। সহজ সাধনায় পুরুষ এবং প্রকৃতি উভয়েই সমপর্যায়ের রসিক হইবে, নতুবা তাহাদের সাধনায় সিদ্ধিলাভ হইবে না। প্রেম-বিলাস গ্রন্থে আছে—

উভয়ে সমান হৈলে তবে ইহা মিলে।
সাধারণী হৈলে ইথে যায় রসাতলে।

অন্যত্র

দৌহে এক হয়ে ডুবে সিদ্ধ হয় তবে ॥
দৌহার মন ঐক্য ভাবে ডুবি এক হয়।
তবে সে সহজ সিদ্ধ জানিহ নিশ্চয় ॥

প্রেমানন্দলহরী।

পং ৫—৬। সহজিয়া মতে প্রকৃত রাগ বলিতে যাহা বুঝা যায়, তাহাতে অনুমাত্রণ্ড শারীরিক সম্বন্ধ নাই, এখানে ইহাই বলা হইল। ইতিপূর্বে ৮ম পদের ব্যাখ্যায় (“ব্যভিচারী হৈলে” ইত্যাদির ব্যাখ্যা দ্রষ্টব্য) এই সম্বন্ধে বিস্তৃত ভাবে আলোচনা করা হইয়াছে। চোখে চোখে, মনে মনে ভালবাসা সহজিয়াদের প্রেম সাধনার প্রকৃষ্ট রীতি। আনন্দ-ভৈরবে আছে—

সাক্ষাতে দেখিবে অন্তরে ভাবিবে গুণ।

অন্যত্র

মনেতে করহ রতি শ্রীরূপ পরম পতি
শ্রীকৃষ্ণ ভজন কর সার।

অমৃতরত্নাবলী।

পং ৭—১৪। রাগের উদয় কি ভাবে হয়, এখানে তাহাই বলা হইয়াছে। কবিরা নায়িকাকে নায়কের সম্মুখে উপস্থিত করিবার সময়ে নানাভাবে তাঁহার শারীরিক সৌন্দর্যের বর্ণনা করিয়া থাকেন। আর নায়ক যখন নায়িকার প্রতি আকৃষ্ট হন, তখন তাঁহার শারীরিক সৌন্দর্য্যই প্রধানতঃ তাঁহার মনকে মোহিত করিয়া থাকে। রাগের উদয়ের ইহাই প্রাথমিক কারণ। ধর্ম্ম-ব্যাখ্যায় এই সাধারণ মনস্তত্ত্ব সহজিয়ারা উপেক্ষা করেন নাই। যাহা মানবের সহজ বা স্বভাবসিদ্ধ, যে সত্যের উপর পার্থিব প্রেমতত্ত্ব প্রতিষ্ঠিত, ইহা তাহারই অভিব্যক্তি। মদন, মাদন প্রভৃতি শব্দ-বারা এই তত্ত্বই এখানে ব্যাখ্যাত হইয়াছে। এই জাতীয় উক্তি অগ্ন্যান্ত সহজিয়া গ্রন্থেও পাওয়া যায়, যথা—

মদন, মাদন, আর শোষণ, স্তম্ভন।

সম্মোহন আদি করি রসিক-করণ ॥

মদন, মাদন দুই-নেত্রে অবস্থিতি। ইত্যাদি।

রত্নসার।

রস-বিশ্লেষণের জন্য এই প্রসঙ্গ এখানে উত্থাপিত হইয়াছে।

১১

কাম আর মদন দুই প্রকৃতি পুরুষ ।
 তাহার পিতার পিতা সহজ মানুষ ॥
 তাহা দেখ দূর নহে আছয়ে নিকটে ।
 ব্রহ্মাণ্ড ভিতরে তেঁহ রহে চিত্রপটে ॥
 সর্পের মস্তকে যদি রহে পঞ্চমণি ।
 কীটের স্বভাব-দোষে তাহে নহে ধনী ॥
 গোরোচনা জন্মে দেখ গাভীর ভাণ্ডারে ।
 তাহার যতেক মূল্য সে জানিতে নারে ॥
 সূন্দর শরীরে হয় কৈতবের বিন্দু ।
 কৈতব হৈলে হয় গরলের সিঁদু ॥
 অকৈতবের বৃক্ষ যদি রহে এক ঠাঁই ।
 নাড়িলে বৃক্ষের মূল ফল নাহি পাই ॥
 নিদ্রার আবেশে দেখ কপাল পানে চেয়ে ।
 চিত্রপটে নৃত্য করে তার নাম মেয়ে ॥
 নিশিযোগে শুকসারী এই কথা কয় ।
 চণ্ডীদাস কহে কিছু বাশুলী কুপায় ॥

ব্যাখ্যা

পং ১—২ । এখানে পুরুষ ও প্রকৃতি-তত্ত্ব আলোচিত হইয়াছে । লোচন-
 দাসের রসকল্পলতিকা গ্রন্থে আছে—

এক বস্তু দুই কাম মদন যার নাম ।
 কামের বিষয় মদনের প্রেম দান ॥

এবং

এই মদন-তত্ত্ব রাধা চন্দ্রমুখী ।
 কৃষ্ণতত্ত্ব কন্দর্প, রাধাতত্ত্ব মদন ॥

আবার

পুরুষ প্রকৃতি দুই কাম আর মদন ।
নায়ক-নায়িকা-তত্ত্ব রসের কারণ ॥

অতএব কামরূপে কৃষ্ণকে বুঝাইতেছে, আর মদনরূপে রাধাকে বুঝাইতেছে ।
কৃষ্ণকে কাম বলে কেন, তাহারও ব্যাখ্যা রত্নসার নামক গ্রন্থে পাওয়া যায়—

যেই হেতু সর্ববচিহ্ন আকর্ষণ করে ।
স্থাবর জঙ্গম আদি সর্ববচিহ্ন হরে ॥
সকলের মন যেই কামে হরি লয় ।
অতএব কামরূপে কৃষ্ণ নিশ্চয় ॥

এবং

কামরূপী কৃষ্ণ কহেন, “শুন ভক্তগণ ।
স্বস্থ ছাড়িয়া কর আমারে ভজন ॥”

আবার

এইত আপনি কৃষ্ণ কাম-কলেবর ।
কামরূপে নানামূর্তি ধরে নিরন্তর ॥

এই সম্বন্ধে ১ম পদের ব্যাখ্যায় (১২-১৫ পৃঃ দ্রষ্টব্য) বিস্তারিত ভাবে আলোচনা করা হইয়াছে ।

তাহার পিতার পিতা ইত্যাদি । এখানে প্রথমতঃ একটি বিষয় লক্ষ্য করিবার আছে । প্রথম পঙ্ক্তিতে কাম ও মদনের কথা বলা হইয়াছে, অথচ দ্বিতীয় পঙ্ক্তিতে তাহাদের পরিবর্তে “তাহার” এই একবচনান্ত সর্বনাম পদ ব্যবহৃত হইয়াছে । ইহা পদকর্তার অসাবধানতাবশতঃ হয় নাই, বরং সুসঙ্গতই হইয়াছে । কাম ও মদনের পূর্বপুরুষের খোঁজ করিতে গেলে স্থপ্তিতত্ত্ব আলোচনা করিতে হইবে । নিগূঢ়ার্থপ্রকাশাবলী গ্রন্থে আছে—

পরমপুরুষ কৃষ্ণ বৈকুণ্ঠের পতি ।
ইচ্ছা হৈলে তিঁহো চান মায়া প্রীতি ।
গোলোক বৈকুণ্ঠ হৈতে করেন ঈক্ষণ ।
তেজোরূপী পরমাত্মা প্রবেশ তখন ॥

এবং

দেহে আসি পরমাত্মা হৈল অবতীর্ণ।

পরমেশ্বরই যে পরমাত্মা রূপে দেহে আসিয়া অবতীর্ণ হন ইহা বেদান্তের শিক্ষা। উপনিষদের সোহমস্মি, তত্ত্বমসি, প্রভৃতি ঋষিবাক্য এই সত্যই প্রচার করিতেছে। আর ঐ “ঈক্ষণ” করিবার কথাও উপনিষদ্ হইতেই গ্রহণ করা হইয়াছে। “সদেব সৌম্যোদমগ্রা আসীৎ, একমেবাদ্বিতীয়ম্; তদৈক্ষত বহু শ্রাং, প্রজায়েয়েতি, তৎ তেজোহস্বজত” (ছান্দো—৬।২।১); “স ঐক্ষত—লোকান্ নু স্বজা ইতি” (ঐত—১।১।২); “স ঈক্ষাঞ্চক্রে” (প্রশ্ন—৬।৩-৪) ইত্যাদি উপনিষদ্-বাক্য। পুরাণাদিতে ইহাই নানাভাবে ব্যাখ্যাত হইয়াছে, তন্মধ্যে এখানে বৃহন্নারদীয় পুরাণের বাক্যই উদ্ধৃত হইল :—

যেনেদমখিলং জাতং ব্রহ্মরূপধরেণ বৈ।

তস্মাৎ পরতরো দেবো নিত্য ইত্যভিধীয়তে ॥ ঐ, ৩।১৮।

অর্থাৎ যিনি ব্রহ্মরূপে অখিল জগতের সৃষ্টিকর্তা, তদপেক্ষা পরমদেব “নিত্য” নামে আখ্যাত। এই নিত্যদেবকে উদ্দেশ্য করিয়া বলা হইয়াছে—“তুমি পরমেশ্বর, পরম্বরূপ, পর হইতে পর, এবং পরম হইতে পরম, তুমি অপারের পার, পরমাত্মার সৃষ্টিকর্তা, ও অশ্রু হইতে পরম পবিত্রকারী, তোমাকে নমস্কার” (ঐ, ৪।৮।৪)। অতএব দেখা যাইতেছে যে নিত্যদেব হইতে ব্রহ্মা বা পরমাত্মার উদ্ভব হইয়াছে, আর এই পরমাত্মাই তেজোরূপে দেহে আসিয়া অবতীর্ণ হন। এখন, এই দেহমধ্যে পরমাত্মা কি ভাবে অবস্থান করেন, সহজিয়া মতে তাহার ধারণা কি, তাহাই দেখা বাউক। উক্ত নিগূঢ়ার্থপ্রকাশাবলীতেই আছে—

পরমাত্মা পুরুষ প্রকৃতিরূপে স্থিতি।

দেহ-নিরূপণ তরে কহেন নিশ্চিত ॥

অশ্রুত্র

এক প্রভু দুই হৈলা রস আশ্বাদিতে।

দুয়ে এক হৈয়া পূর্বের আছিল নিশ্চিত ॥

এখন দুয়েতে দেখ রহে এক হৈয়া।

দেহ মধ্যে দুই জন দেখ বিচারিয়া ॥

বাম অঙ্গে প্রকৃতি পুরুষ দক্ষিণে ।

দুই দেহে দোহে আছে ভাবি দেখ মনে ॥

এবং

পরমাত্মা পুরুষ প্রকৃতিরূপে জোড়া ।

দুই তনু এক আত্মা কভু নহে ছাড়া ॥

অতএব দেখা যাইতেছে যে পরমাত্মা পুরুষ ও প্রকৃতিরূপে দেহমধ্যে অবস্থান করিতেছেন । এই পুরুষ ও প্রকৃতিই যে কাম ও মদন আখ্যায় প্রচারিত হইয়াছে, তাহা ইতিপূর্বে বলা হইয়াছে । অতএব দাঁড়াইল এই—কাম ও মদন একীভূত হইয়া জীবাত্মা রূপে দেহমধ্যে অবস্থান করিতেছেন । এই জীবাত্মার (একবচনান্তে সর্বনাম “তাহার” দ্বারা যাহাকে বুঝাইতেছে) উদ্ভব হইয়াছে পরমাত্মা হইতে, আর পরমাত্মার উৎপত্তি হইয়াছে নিত্যদেব হইতে । কাজেই নিত্যদেব হইলেন কাম ও মদনের পিতার পিতা, তিনিই সহজ মানুষ । বিবর্ত-বিলাসে এই পদটি উদ্ধৃত করিয়া লেখা হইয়াছে—

কাম মদন যে, দুইয়ের পিতা যেহ ।

তার পিতা যারে কহি, সহজ মানুষ সেহ ॥

এই জন্মই নিত্যদেবের আদেশে বাণুলী সহজধর্ম্ম শিক্ষা দিতে আসিয়াছেন, এবং তিনি নিত্যেতে থাকেন, ইত্যাদি তত্ত্ব সহজিয়ারা প্রচার করিয়াছেন । এখানে স্পর্শই দেখা যাইতেছে যে সহজিয়ারা বৈদান্তিক মত অনুসরণ করেন, উপনিষদের ব্রহ্মকেই তাঁহারা নিত্য নামে অভিহিত করিয়াছেন । কৃষ্ণকেও তাঁহারা নিত্যদেবের নিম্নে আসন প্রদান করিয়াছেন, যথা—

নরবপু দেহ এই মানুষ আকার ।

সে মানুষ অনেক দূর এ মানুষের পার ॥

জন্মমৃত্যু নাহি তার নহে সে ঈশ্বর ।

গোলোকের পতি যারে ভাবে নিরন্তর ॥

সেই মানুষ হৈতে বহু কৈল পরিশ্রম ।

ব্রজপুরে নন্দঘরে লভিল জনম ॥

সহজবস্তু সহজপ্রেম সহজ মানুষ হ'য়া ।

লীলা করে গোপীসঙ্গে মায়া আচ্ছাদিয়া ॥ অমৃতরসাবলী ।

অন্যত্র

কত শত জন

কৈল বহুশ্রম

কেহত যাইতে নারে ।

শিব হলধর

সে নহে গোচর

গোলোকনাথ ভাবে যারে ॥

অমৃতরসাবলী ।

কৃষ্ণও অন্তকে চিন্তা করেন এইরূপ কথা মহাভারতের শান্তিপর্ব্বো লিখিত আছে। নারদ বদরিকাশ্রমে নারায়ণকে দেখিতে গিয়াছিলেন। তিনি যাইয়া দেখেন যে নারায়ণ নিজেই ধ্যানমগ্ন রহিয়াছেন। জিজ্ঞাসা করিয়া জানিলেন যে নারায়ণ তাঁহার মুখ্যা প্রকৃতির ধ্যান করিতেছেন। কৃষ্ণেরও উপাস্ত আছে, ইহা সহজিয়াদের উদ্ভট পরিকল্পনা নহে।

পং ৩-৪। এক জাতীয় উপাসনায় পরমাত্মাকে পুরুষাকারে কল্পনা করিয়া দেহমধ্যে স্থাপন করা হয়। এই বিষয়ক আলোচনা ব্রহ্মসূত্রের ১।২।৩০-৩৩ সূত্রে দেখিতে পাওয়া যায়। তন্মধ্যে ১।২।৩২ সূত্রে বলা হইয়াছে যে “সম্পত্তেরিতি জৈমিনিস্তথা হি দর্শয়তি,” অর্থাৎ “সম্পৎ (একের উৎকৃষ্ট গুণ লইয়া অপরকে তদ্রূপে উপাসনা করা) উপাসনার জন্ম এইরূপ করা হইয়া থাকে, ইহা জৈমিনি আচার্য্যও মনে করেন।” ছান্দোগ্য উপনিষদের ৮।১।১ সূত্রেও আছে—“অথ যদি-দমশ্বিন্ ব্রহ্মপুত্রে দহরং পুণ্ডরীকং বেষ্ম, ইত্যাদি;” অর্থাৎ “এই যে ব্রহ্মপুত্রে ক্ষুদ্র পুণ্ডরীক গৃহ, ইহার মধ্যে ক্ষুদ্র একটি আকাশ আছে; তাহার অভ্যন্তরে বাহা আছে, তাহা অন্বেষণ করিবে, তাঁহাকে জিজ্ঞাসা করিবে।” এই সূত্রের ভাষ্যে বলা হইয়াছে “পুরহেনোপাসকশরীরং নির্দিষ্ট্য ইত্যাদি,” অর্থাৎ “উপাসক-শরীরকে ব্রহ্মপুত্রে শব্দে নির্দেশ করা হইয়াছে।” এই দেহমধ্যে পরমাত্মা কোথায়, কি ভাবে অবস্থান করেন, তাহার সন্ধানও পাওয়া যায়। ছান্দোগ্যের ৫।১।৮২ সূত্রে আছে “মূর্দ্ধৈব স্মৃতেজাঃ, ইত্যাদি।” ইহার টীকায় বলা হইয়াছে—“উপাসকস্ত মূর্দ্ধৈব পরমাত্মমূর্দ্ধভূতা ত্তোরিত্যর্থঃ,” অর্থাৎ উপাসকের মস্তকই পরমাত্মার মস্তকস্থানীয় তুল্যলোক, ইত্যাদি। পরমাত্মা নিষ্পাপ, জরা-মৃত্যু-শোক-ক্ষুধা-পিপাসা-রহিত, সত্যকাম ও সত্যসঙ্কল্প (ছান্দো° ৮।১।৫)। ইহাকে জানিলে সমস্ত লোকে স্বচ্ছন্দগতি হয়, এবং বাহা ইচ্ছা করা যায় তাহাই ইচ্ছামাত্রে উপস্থিত হইয়া থাকে (ঐ, ৮।১।৬; ৮।২।১০)। এমন কি এই দহরাকাশ উপাসনা-দ্বারা নিষ্পাপাদি

কল্যাণময় গুণবিশিষ্ট স্বভাবসিদ্ধ স্বরূপকেও প্রাপ্ত হওয়া যায় (শ্রীভাষ্য, পরিষদ-সংস্করণ, ৫৬৭ পৃঃ) ।

আলোচ্য পঙ্ক্তিদ্বয়েও এই কথাই বলা হইয়াছে । এখানে “ব্রহ্মাণ্ড” অর্থে “ব্রহ্মপুর” বা মানবদেহ, যথা—“জগৎ শব্দে ব্রহ্মাণ্ড কহি আপন শরীরে ।”—বিবর্ত-বিলাস । “তাহা” অর্থে “সেই পরমাত্মা” যাঁহার সম্বন্ধে পূর্ববর্তী দুই পঙ্ক্তিতে বলা হইয়াছে যে তিনি কাম ও মদনের পিতা । অতএব ভাবার্থ হইল এই—সেই পরমাত্মা দূরে অর্থাৎ শরীরের বহির্দেশস্থ স্বর্গাদি কোন স্থানে থাকেন না । তিনি নিকটে অর্থাৎ ব্রহ্মাণ্ড আখ্যাত এই দেহের মধ্যেই আছেন । কিরূপ ভাবে আছেন? ইহার উত্তরে বলা হইল যে, কোন মূর্তি চিত্রপটে অঙ্কিত হইয়া যেরূপ থাকে, সেইরূপ ভাবে আছেন । “চিত্রপটের” বিশদ ব্যাখ্যার জন্ত ছান্দোগ্য উপনিষদের পূর্বোক্ত ৫।১৮।২ সূত্রটি ভাষান্তরিত করিয়া দেওয়া হইল—“উপাসকের মস্তকই পরমাত্মার মস্তকস্থানীয় দ্যুর্লোক, উপাসকের চক্ষুই পরমাত্মার চক্ষুস্থানীয় আদিত্য, উপাসকের প্রাণই পরমাত্মার প্রাণস্থানীয় বায়ু, উপাসকের দেহমধ্যই পরমাত্মার দেহমধ্যভূত আকাশ, ইত্যাদি ।” এই ভাবে পরমাত্মার আকৃতি উপাসকের দেহমধ্যে কল্পনা করা মানস-পটে অঙ্কিত চিত্র ভিন্ন আর কিছুই নহে । এতদ্ভিন্ন সমভাবে নিত্য-বর্তমান সাক্ষিভূত পরমাত্মা নিরহঙ্কার, নিষ্ক্রিয়, এবং নির্লিপ্ত বলিয়াও “চিত্রপট” পরিকল্পনার সার্থকতা লক্ষিত হয় । এই জন্তই এখানে “চিত্রপট” শব্দ ব্যবহৃত হইয়াছে ।

দূরে নহে আছয়ে নিকটে । এই জাতীয় কথা রাধারস-কারিকাতেও পাওয়া যায়, যথা—

বৈকুণ্ঠ ভিতরে নাহি, নাহিক বাহিরে ।

সেই বস্তু জগতে আছে ভকত অন্তরে ॥

ধর্মজগতে এই কথাগুলি অতিশয় মূল্যবান । এক প্রকার উপাসনা আছে যাহাতে বাহিরের দেবতার আরাধনা করিয়া ঐ দেবতার সাহায্যে লোকে মুক্তি কামনা করে । আর এক প্রকার উপাসনা আছে যাহাতে নিজের আত্মাকে প্রবুদ্ধ করিয়া নিজের মুক্তি নিজে করিতে হয় । যেমন রবীন্দ্রনাথ বলিয়াছেন—

আমাকে তুমি করিবে ত্রাণ

এ নহে মোর প্রার্থনা ।

তরিতে পারি শক্তি যেন রয় ।

উপনিষদের “নায়মাত্মা বলহীনেন লভ্যঃ,” এই বাণীটির মূলেও এই ধারণা বর্তমান রহিয়াছে। ব্রহ্মলান্বেষু ব্যক্তির পক্ষে জীবাত্মার স্বরূপও অবশ্য জ্ঞাতব্য, এই কথা নানাভাবে উপনিষদে প্রচারিত হইয়াছে। সহজিয়ারাও আত্মতত্ত্বজ্ঞানের প্রয়াসী—

আপনা জানিলে তবে সহজ বস্তু জানে।

অমৃতরসাবলী।

ইহা তাঁহাদের দৃঢ় বিশ্বাস। এই জন্মই তাঁহারা দেহ ও আত্মা এই উভয়েরই স্বরূপনির্ণয়ে ব্যস্ত হইয়াছেন। পরমাত্মাকে শরীরে স্থাপন করিয়া তাঁহারা বলিয়াছেন—

শরীরের রাজা এই পরমাত্মা গণি।

রসতত্ত্ব।

দেহমধ্যে অধিকারী পরমাত্মা মহাশয়।

নিগূঢ়ার্থপ্রকাশাবলী।

এই দেহে সেই প্রভু সদা বিরাজমান।

আত্ম-নিরূপণ গ্রন্থ।

অতএব

সকলের সার হয় আপন শরীর।

নিজদেহ জানিলে আপনে হবে স্থির ॥

অমৃতরসাবলী।

দেহতত্ত্ব জানিলেই সব হয় স্থির।

দেহমধ্যে সব আছে বুঝহ সুধীর ॥

নিগূঢ়ার্থপ্রকাশাবলী।

ভজনের মূল এই নরবপু দেহ।

অমৃতরসাবলী।

এই পরমাত্মা যে দেহমধ্যে কোথায় থাকেন, তাহার নির্দেশও সহজিয়ারা করিয়াছেন—

পরমাত্মা থাকেন কোথা ? শিরে সহস্রদল পদ্মে ।

স্বরূপ-কল্পতরু ।

দেহের ভিতরে আছে সরোবর অক্ষয় ।

পরমাত্মা হন তিঁহো অক্ষয় অব্যয় ।

পরমাত্মা স্থিতি স্থান অক্ষয় সরোবর ।

নিগূঢ়ার্থপ্রকাশাবলী ।

সেই সরোবরে আছে সহস্র কমল ।

মহাসত্ত্বা শুদ্ধসত্ত্বা তার পরিমল ॥

মহাসত্ত্বা অধিকারী পরমাত্মা হয় ।

অমৃতরত্নাবলী ।

অতএব পরমাত্মা যে দূরে নয়, নিকটে আছেন, অর্থাৎ দেহমধ্যে বিরাজ করিতেছেন, এই ধারণা সহজিয়াদের স্বাভাবিক । পূর্ববর্তী শাস্ত্রকারগণের মতের অনুবর্তী হইয়াই তাঁহারা এই সিদ্ধান্তে উপনীত হইয়াছেন । ইহা তাঁহাদের মনগড়া কথা নয়, বেদান্তের শিক্ষা মাত্র । ব্রজতাব লাভেচ্ছ উদ্ধবকে শ্রীকৃষ্ণ “সর্বদেহিনাম্ আত্মানম্ মাম্ একমেব শরণং যাহি” বলিয়া যে উপদেশ দিয়াছিলেন তদনুসারে বিশুদ্ধ সহজপন্থিগণ শ্রীগুরুবৈষ্ণবে তথা প্রকাশমান জগতে কৃষ্ণবুদ্ধি করিয়া থাকেন । স্মৃতরাং এভাবেও সাধ্যতত্ত্ব সর্বদা নিকটেই বর্তমান ।

পং ৫—৮ । পরমাত্মা যে মানবদেহে মস্তকে সহস্রদল-পদ্মে বিরাজ করেন তাহা বলা হইয়াছে । তৎপরে এখন বলা হইতেছে যে পরমাত্মা দেহমধ্যে বর্তমান থাকা সত্ত্বেও মানব তাহা বুঝিতে পারে না । সাপের মাথায় মণি থাকিলেও যেমন সাপ ঐ মণি-দ্বারা নিজেকে ধনী মনে করে না, অথবা গাভীর মাথায় গোরোচনা জন্মিলেও যেমন গাভী তাহার গুণ বুঝিতে পারে না, সেইরূপ দেহমধ্যে পরমাত্মাকে পাইয়াও মানবগণ তাঁহার মূল্য বুঝিতে পারে না । এই দুইটি উপমা-দ্বারা এখানে বিষয়টি বুঝাইয়া দেওয়া হইয়াছে । মানবগণের এইরূপ অজ্ঞতার কারণ কি ? উপনিষদের মত উদ্ধৃত করিয়া আমরা ইতিপূর্বেই দেখাইয়াছি যে মানুষ পরমাত্মার অংশসম্মত (ছান্দো°, ৬।৯।২, ৪।১।১১ ; মুণ্ড°, ১।৩ ; কঠ, ১।১৪, ৩।১২, ইত্যাদি) । কিন্তু জন্মের পরই মোহ, মায়া বা অজ্ঞানতা দ্বারা অভিভূত হইয়া তাঁহারা সংসারে জড়িত হইয়া পড়ে (সাঙ্খ্য,

৬।১৬ ; যোগ, ২।২৪, ইত্যাদি) । তত্ত্বজ্ঞান-দ্বারা এই মোহের বন্ধন ছিন্ন করিতে পারিলেই তাহারা পুনরায় মুক্ত হইতে পারে (ছান্দো°, ৭।১।৩ ; কঠ, ২।২।১২ ; সাঙ্খ্য, ১।১০৪ ; যোগ, ২।২৬ ; ইত্যাদি) । সহজিয়া গ্রন্থাদিতেও ঠিক এই কথাই পাওয়া যায় ।

ঈশ্বরের শক্তি সেই জীবের হৃদয়ে ।
 স্বরূপের শক্তি সত্য ইহা মিথ্যা নহে ॥
 ঈশ্বরের শক্তি যেই জ্বলিত জ্বলন ।
 জীবতে স্বরূপ যৈছে ফুলিঙ্গের কণ ॥
 সেই শক্তিকণা তেঁহো হয় অগ্নিময় ।

আত্মনিরূপণগ্রন্থ ।

অনুব্র—

এই মত মনুষ্য ঈশ্বর জ্ঞাতিগণ ।

রত্নসার ।

কিন্তু জন্মের পরে—

তারপর বিষ্ণুমায়া আসিয়া বেড়িল ।
 কোথা প্রভু নিজবস্তু সর্ব্ব পাসরিল ॥

বৃহৎপ্রেমভক্তিচন্দ্রিকা ।

এই যে মায়া, তাহাদ্বারা আচ্ছন্ন হইয়া মানুষ নিজের স্বভাব বিস্মৃত হয় । এই জন্মই পরমাত্মা দেহমধ্যে বর্তমান থাকা সত্ত্বেও তাহারা তাহা বুঝিতে পারে না ।

পং ৯-১২ । কৈতব অর্থ কপটতা, ছল বা মোহ ।

চরিতামৃতে আছে—

অজ্ঞানতমের নাম কহি যে কৈতব ।
 ধর্ম্মার্থকামমোক্ষ বাঞ্ছা এই সব ॥

আদির প্রথমে ।

মানুষের অজ্ঞানান্ধকারকেই এখানে কৈতব শব্দে লক্ষ্য করা হইয়াছে । আলোচ্য

চারি পঙ্ক্তির অর্থ এই—“এই যে সুন্দর মানব-দেহ বাহাতে পরমাত্মা অবস্থান করেন (এই জন্মই সুন্দর বলা হইয়াছে), তাহাতেও মায়ামোহজনিত কৈতব বর্তমান আছে। এই কৈতবদ্বারা অভিভূত হইলে লোক দুঃখরূপ বিষের সাগরে নিমজ্জিত হয়। কৈতবই কামনার উদ্রেক করে, এবং ইহাই দুঃখের কারণ। অতএব অকৈতব না হইলে মুক্তি লাভ করা যায় না। এখানে বলা হইল যে অকৈতব বৃক্ষের মূল নাড়িলেও তাহাতে কোন ফল হয় না, অর্থাৎ কোন ব্যক্তি যদি অকৈতব হন, তাহা হইলে তিনি মায়াদ্বারা কিছুতেই অভিভূত হন না। ইহাই সাংখ্যের মতে পরমপুরুষার্থ।

পং ১৩-১৪। নিদ্রার আবেশে কপাল পানে চাওয়ার অর্থ ধ্যানস্থ হইয়া তত্ত্বদর্শী হওয়া। মেয়ে অর্থ প্রকৃতি, আর এই প্রকৃতিই মায়ী (তুঁ—মায়াং তু প্রকৃতিং বিজ্ঞাৎ, অর্থাৎ মায়াকেই প্রকৃতি বলিয়া জানিবে, শ্বেতাশ্বতর উপনিষদ, ৪।১০)। অতএব ভাবার্থ হইল এই যে, আত্মস্থ হইয়া তত্ত্বদর্শী হইতে চেষ্টা কর, দেখিবে যে এই পৃথিবী একমাত্র মায়ার খেলা ভিন্ন আর কিছুই নহে। চিত্রপটে অর্থাৎ বর্তমান যুগের “সিনেমার” চিত্রের স্থায়, মায়াই পৃথিবীতে নৃত্য করিয়া যাইতেছে; সবই ছলনা, দৃষ্টির বিভ্রম মাত্র।

“নিদ্রা” ও “কপাল” শব্দদ্বয় যোগশাস্ত্রাদি হইতে গ্রহণ করা হইয়াছে। পতঞ্জলীর ১।৩৮ সূত্রে আছে যে যোগীরা সাস্বিক নিদ্রাদ্বারাও মন স্থির করিতে পারেন। “দেশবন্ধ চিত্তের ধারণাদ্বারা” অর্থাৎ শরীরের অংশবিশেষ, যেমন নাভি, হৃদয়, মস্তক, বা কপালে মন স্থির করিয়া ধ্যানস্থ হইতে হয় (যোগ, ৩।১)। আনন্দলহরী নামক তান্ত্রিক গ্রন্থের ৪১ শ্লোকে আছে—“আজ্ঞাচক্রে, দুই চক্ষের মধ্যবর্তী স্থানে, অবস্থিত শতসহস্র চন্দ্রসূর্যের প্রভায় উদ্ভাসিত পরমশস্ত্র শিবকে আমি প্রণাম করি। তিনি তথায় পরমা চিৎ শক্তির সহিত অবস্থান করিতেছেন,” ইত্যাদি। অতএব ধ্যানযোগে “কপাল” পানে চাহিয়া চিন্তা করা, যোগেরই প্রকারভেদ মাত্র।

দ্রষ্টব্য :—ইংরাজী সনেটের অনুকরণে মাইকেল বাঙ্গালা ভাষায় চতুর্দশপদী কবিতা প্রবর্তন করেন, ইহাই সাধারণতঃ বলা হইয়া থাকে। কিন্তু মাইকেলের বহুপূর্বেই এই জাতীয় কবিতা বাঙ্গালা ভাষায় প্রচলিত ছিল। সাহিত্য-পরিষদ সংস্করণের চণ্ডীদাসের পদাবলীর ৭৭৪ ও ৭৭৬ সংখ্যক পদদ্বয় নমুনাস্বরূপ উল্লেখ করা যাইতে পারে। কিন্তু পাশ্চাত্য প্রথার সহিত তুলনা করিলে, দেশীয় প্রথায় এই জাতীয় কবিতা রচনার কিছু পার্থক্য পরিলক্ষিত হইবে। কখনও ইহার

ষোড়শপদীও হইত, যেমন আলোচ্য পদটিতে হইয়াছে। প্রকৃতপক্ষে কবির বর্ণনীয় বিষয় চতুর্দশ পদেই শেষ হইয়াছে, শেষ দুই পদ কবির ভণিতামাত্র। আর একটি বিশেষত্ব এই যে এই জাতীয় কবিতা পদে পদে মিল রাখিয়া পয়ারের পদ্ধতিতে রচিত হইত।

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রসিক রসিক সবাই কহয়ে
কেহত রসিক নয়।
ভাবিয়া গণিয়া বুঝিয়া দেখিলে
কোটিতে গুটিক হয় ॥
সখি হে, রসিক বলিব কারে ?
বিবিধ মশলা রসেতে মিশায়
রসিক বলি যে তারে ॥
রস পরিপাটি সুবর্ণের ঘটা
সম্মুখে পুরিয়া রাখে।
খাইতে খাইতে পেট না ভরিবে
তাহাতে ডুবিয়া থাকে ॥
সেই রসপান রজনী দিবসে
অঞ্জলি পুরিয়া খায়।
খরচ করিলে দ্বিগুণ বাড়ায়
উছলিয়া বহি যায় ॥
চণ্ডীদাস কহে শুন রসবতি
তুমি সে রসের কূপ।
রসিক জনা রসিক না পাইলে
দ্বিগুণ বাড়য়ে দুঃখ ॥

ব্যাখ্যা

পং ১-৪। সহজধর্মের রীতি এই যে প্রকৃত রসিক না হইলে কাহারও সহজ সাধনায় ত্রুটি হইবার অধিকার নাই। রসিক কাহাকে বলে, তাহার লক্ষণ কি, ইত্যাদি বিষয় কয়েকটি রাগাত্মক পদে আলোচিত হইয়াছে। আলোচ্য পদটি এই জাতীয়। নিগূঢ়ার্থ-প্রকাশাবলীতে আছে—

রসতত্ত্বজ্ঞাতা হৈলে রসিক নাম তার।

সহজ কথায় বলিতে গেলে, যে রসতত্ত্ব জানে সেই রসিক। এখন, এই রসতত্ত্ব কি? আলঙ্কারিকগণ বলেন যে আমাদের মনে কতকগুলি স্থায়িতাব আছে। তাহারা সাধারণতঃ সুপ্ত অবস্থায় অবস্থান করে। কিন্তু কোন প্রকার বাহ্য উত্তেজনা পাইলে তাহারা প্রবুদ্ধ হইয়া উঠে। বিবিধ ভাব এইরূপে জাগরিত হইলে মনে যে আনন্দ অনুভূত হয় তাহাই রস। আনন্দই রসের প্রাণ, আর অনুভূতিতেই ইহার অস্তিত্ব ঘোষণা করে। নানাভাবে রসের অনুভূতি জন্মিতে পারে। কোন দৃশ্য দেখিয়া বা কাব্য পড়িয়া যখন মনে আনন্দের উদ্বেক হয়, তখনই রসের উৎপত্তি হইয়াছে, বুঝিতে হইবে। অতএব দেখা যাইতেছে যে রসের জন্মস্থান মনে, শরীরে নহে। রসভোগ করিতে হইলে মানুষকে দ্রষ্টার পর্যায়ে অধিষ্ঠিত হইতে হইবে,—তাহার সন্মুখে ঘটনা ঘটিয়া যাইতেছে, আর তাহা দেখিয়া সে আনন্দ পাইতেছে, ইহাতেই রসের জন্ম। নতুবা নটের ভূমিকায় অবতীর্ণ হইয়া সে রস সৃষ্টি করিতে পারে মাত্র, রসভোগ করিতে হইলে তাহার দ্রষ্টার আসনে উপবিষ্ট হওয়া ভিন্ন গত্যন্তর নাই। এই নীতির উপরেই সহজিয়াদের রস-সাধনা প্রতিষ্ঠিত হইয়াছে। বিবর্তবিলাসে আছে—

দধিবৎ আছে রস জানিহ অন্তরে।

চারি মসলায় পাক কর একন্তরে ॥

অর্থাৎ অন্তরে যে স্থায়িতাব আছে, তাহাকে প্রবুদ্ধ কর।

অন্যত্র—

এক স্থানে রসদ্রব্য আছে চিরকাল।

থাকিলে বা কিবা হয়, বুঝহ সকল ॥

স্থানান্তরে রস লইয়া মসলা তাহে দিয়ে ।

ভিয়ান করহ রস, যেই তারে পিয়ে ॥

তাহাকে রসিক কহি, আর কেহ নহে ।

হেন সাধন বিনে কেহ রসিক না হয়ে ॥

বিবর্তবিলাস ।

ইহার পরেই উক্ত গ্রন্থে দৃষ্টান্তস্বরূপ আমাদের আলোচ্য পদটি উদ্ধৃত হইয়াছে ।
পদটির ভাবার্থ এই—

পং ১-৪ । অনেকেই নিজেকে রসিক বলিয়া প্রচার করে, কিন্তু তাহাদের কেহই প্রকৃত রসিক নয় । বিচার করিলে এইরূপ তথাকথিত এক কোটি রসিক লোকের মধ্যে দুই একটি প্রকৃত রসিক পাওয়া যায় মাত্র ।

পং ৫-৭ । প্রকৃত রসিক কাহাকে বলে, ইহার উত্তরে বলা হইল যে প্রকৃত রসিক ব্যক্তি “স্থানান্তরে রস লইয়া, তাহাতে বিবিধ মসলা দিয়া ভিয়ান করে ।” এই ভিয়ান করার উদ্দেশ্য কি ? বিবর্তবিলাসে এই সম্বন্ধেই বলা হইয়াছে—

অতএব রস লইয়া ভিয়ান করিলে ।

তবে তারে রাধাকৃষ্ণ সেই কাম মিলে ॥

ইক্ষু রসে যৈছে ওলামিছরি হয় ।

তৈছে দ্রব্যশক্তি হৈতে মহাভাব পায় ॥

বীজ, ইক্ষু, রস, গুড়, তবে খণ্ড সার ।

শর্করা, সিতাওলা, শুদ্ধ-মিছরি আর ॥

ইহা যৈছে ক্রমে নির্ম্মল বাড়ে স্বাদ ।

রতি প্রেমাদিকে তৈছে বাড়ায় আশ্বাদ ॥

অর্থাৎ এইরূপ ভিয়ানে প্রেম নির্ম্মল হয় । রসিকগণ বিবিধ প্রণালীতে রসকে নির্ম্মল করিয়া আশ্বাদন করে । এইরূপ গুণ বাহার আছে সেই রসিক । সহজ মতে প্রকৃত রসিকের এই এক বিশেষত্ব এখানে বর্ণিত হইল ।

পং ৮-১৫ । প্রকৃত রসিক নানা প্রক্রিয়ায় রসকে নির্ম্মল করিয়া আশ্বাদন করে, ইহা পূর্বেই বলা হইয়াছে । এই আশ্বাদন করিবার প্রণালী কি, এখন

তাহাই বলা হইতেছে। প্রকৃত রসিকগণের প্রকৃতি এইরূপ হইবে যে তাহারা রসসাগরে সর্বদা নিমজ্জিত থাকিয়া রস আশ্বাদন করিলেও, তাহাদের রসপানের আকাঙ্ক্ষা সর্বদাই অতৃপ্ত রহিয়া যাইবে। যেন একটি স্তবর্ণের ঘটা পূর্ণ করিয়া নির্মল রসের তরল সার সম্মুখে স্থাপন করা হইয়াছে, তাহা হইতে অবিরত রস পান করা হইতেছে, অথচ তৃপ্তি হইতেছে না। প্রকৃত রসিকগণ এইরূপ ভাবে রস আশ্বাদন করেন। দৃষ্টান্তস্বরূপ চৈতন্যদেবের ভাবোন্মাদ অবস্থা উল্লেখ করা যাইতে পারে। তিনি সর্বদাই ভগবৎ-প্রেমে বিভোর থাকিতেন, কৃষ্ণের প্রতি গোপীজনোচিত প্রেমে তিনি নিজেকে মাতাইয়া তুলিয়াছিলেন; তাঁহার সমাধি হইত, তিনি মিলনানন্দ উপভোগ করিতেন, আবার সমাধি ভঙ্গ হইলেই অধিকতর আবেগের সহিত মিলনের জন্ম কাঁদিয়া আকুল হইতেন। ইহাকেই বলা হইয়াছে—“খরচ করিলে, দ্বিগুণ বাড়ায়, উছলিয়া বহি যায়।” সহজ সাধনায় রসিকপর্যায়ভুক্ত লোকগণ প্রেমের জন্ম এইরূপ বাউল হইবেন, ইহাই বক্তব্য। সাধারণ লোকেরা এইরূপ হয় না বলিয়াই বলা হইয়াছে যে “কোটিতে গোটক হয়।” সমগ্র পদটি এই উক্তিরই ব্যাখ্যা মাত্র।

টীকা :—রসিক রসিক ইত্যাদি। সহজিয়ারা একটি নব রসিকের দল গঠন করিয়াছেন। তাঁহাদের মতে চণ্ডীদাস, বিদ্যাপতি, জয়দেব, লীলাশুক, রামানন্দ, চিন্তামণি, রাসী, পদ্মাবতী এবং লছিম নবরসিকের দলভুক্ত। এমন কি বৈষ্ণব গোস্বামীদিগের সঙ্গে এক একটি প্রকৃতি জুড়িয়া দিয়া তাঁহারা তাঁহাদিগকেও সহজ সাধনার পথে টানিয়া আনিতে চেষ্টা করিয়াছেন। বৈষ্ণবগণ এই কথা শুনিয়া অগ্নিবৎ জ্বলিয়া উঠেন, আর সহজিয়াদের নিন্দা করেন। কিন্তু সহজিয়াদের এই প্রকার উক্তির কারণ কি তাহা ঐতিহাসিকের পক্ষে ধরা কষ্টকর নয়। এপর্যন্ত যে কয়টি রাগাত্মক পদের ব্যাখ্যা আমরা করিয়াছি তাহাতে স্পষ্টই দেখা যাইতেছে যে চৈতন্য-পরবর্তী যুগে বর্তমান সহজধর্মের উদ্ভব হইয়াছিল। এই সম্বন্ধীয় বিবিধ প্রমাণ ইতিপূর্বে প্রদর্শিত হইয়াছে। এই জন্মই সহজিয়ারা বৈষ্ণব গোস্বামী ও কবিগণকেই জড়িত করিয়া সহজধর্মের ভিত্তি স্থাপন করিতে চেষ্টা করিয়াছেন। রসিক বাঁহারাই থাকুন না কেন, সহজিয়া-সাধনা-প্রচারের ফলে দেশে যে অনেক তথাকথিত রসিকের উদ্ভব হইয়াছিল, তাহা এই পদেই ধরা পড়ে। তাহারা যে প্রকৃত রসিক নহে, তাহা উল্লেখ করিয়া এখানে রসিকের বিশেষত্ব বর্ণিত হইয়াছে।

কেবল যে প্রাকৃত নায়ক-নায়িকা ঘটিত সাধনা-সম্বন্ধেই রসিক শব্দ ব্যবহৃত

হইয়াছে, তাহা নহে, পরমাত্মা-সম্বন্ধীয় সাধনাতেও ইহার শ্রেষ্ঠ প্রয়োগ লক্ষিত হইয়া থাকে। নিগূঢ়ার্থপ্রকাশাবলীতে আছে

প্রেম নিত্যসাধ্য বস্তু সাধনের সার ।
ইহা বিনে বস্তুতত্ত্ব নাহি কিছু আর ॥
পরমাত্মা-সাধন যদি নিজ দেহে হয় ।
তবে বস্তুজ্ঞাতা ইহা কিবা কয় ॥
হৃদয় মাঝারে তারে জানিবারে পারে ।
তবে শুদ্ধসত্ত্ব হয়, মানুষ বলি তারে ॥

এবং—

তবেই সহজলোক রসের ভাণ্ডার ।
রসতত্ত্বজ্ঞাতা হৈলে রসিক নাম তার ॥

এই যে রসতত্ত্ব, ইহা পরমাত্মা-সম্বন্ধীয় রসজ্ঞাত। সহজতত্ত্ব-গ্রন্থে একমাত্র চৈতন্যদেবকে এই রসের যাজনকারী বলা হইয়াছে—

সহজভক্তি হয় রাখাক্ষেপের উপাসনা ।
তাহার আশ্রয় চৈতন্যগোসাই-যাজনা ॥
গোড়ে আসি অবতীর্ণ কৈল ।
সহজভক্তি যাজন করিব, বড় ক্ষোভ ছিল
গৌরাজ্ঞের মনে ।
সত্ত্ব রজ তম ছাড়া নহে কদাচনে ॥
সহজভক্তি যাজন করিল একজন ।

অন্যত্র—

তাহা আশ্বাদিতে এক বই নহে দ্বিতীয় জন ।

এই জগুই বলা হইয়াছে যে ভাবরাজ্যের এইরূপ রসিক এককোটি লোকের মধ্যে একজন মাত্র হয়। ইহা সহজিয়াদের দৃঢ় বিশ্বাস ছিল, কারণ এই জাতীয় উল্লেখ অন্যত্রও পাওয়া যায়।

চণ্ডীদাস বলে

লাখে এক মিলে

জীবের লাগয়ে ধান্দা ।

বড় বড় জন রসিক কহয়ে
 রসিক কেহত নয় ।
 তরতম করি বিচার করিলে
 কোটিতে গোটিক হয় ॥

৭৯০ নং পদ ।

পরতত্ত্ব কোটি মধ্যে কুচিৎ জানে কেহ ।
 বিবর্তিলাস ।

এই পরতত্ত্ব-সম্বন্ধীয় সাধনাতেই রসিক শব্দের শ্রেষ্ঠ প্রয়োগ, অগুত্র ইহার
 অনুকরণ মাত্র ।

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রসের কারণে রসিকা রসিক
 কায়াদি ঘটনে রস ।
 রসিক কারণ রসিকা হোয়ত
 যাহাতে প্রেম-বিলাস ॥
 স্থূলত পুরুষে কাম সূক্ষ্ম গতি
 স্থূলত প্রকৃতি রতি ।
 দুঁহক ঘটনে সে রস হোয়ত
 এবে তাহে নাহি গতি ॥
 দুঁহক জোটন বিন হি কখন
 না হয় পুরুষ নারী ।
 প্রকৃতি পুরুষে যো কিছু হোয়ত
 রতি প্রেম পরচারি ॥
 পুরুষ অবশ প্রকৃতি সবশ
 অধিক রস যে পিয়ে ।
 রতি-সুখ কালে অধিক সুখাই
 তা নাকি পুরুষে পায় ।

দু'হুক নয়নে নিকষয়ে বাণ
 বাণ যে কামের হয় ।
 রতির যে বাণ নাহিক কখন
 তবে কৈছে নিকষয় ?
 কাম দাবানল রতি সে শীতল
 সলিল প্রণয়-পাত্র ।
 কুল কাঠ খড় প্রেম যে আখ্যেয়
 পচনে পীরিতি মাত্র ॥
 পচনে পচনে লোভ উপজিয়া
 যবে ভেল দ্রবময় ।
 সেই বস্তু এবে বিলাসে উপজে
 তাহারে রস যে কয় ॥
 বাশুলী-আদেশে চণ্ডীদাস তথি
 রূপনারায়ণ সঙ্গে ।
 দু'হু আলিঙ্গন করল তখন
 ভাসল প্রেম-তরঙ্গে ॥

দ্রষ্টব্য :—এই পদটি পদকল্পতরুর ৪র্থ শাখার ২৬শ পল্লবেও উদ্ধৃত
 হইয়াছে। এখানে উভয় গ্রন্থের মিলিত পাঠ দেওয়া হইল। পদকল্পতরুতে
 পদটি বিজ্ঞাপতির ভণিতায় দৃষ্ট হয়।

ব্যাখ্যা

এই পদেও রস-বিসৃতি চলিয়াছে। প্রথম পঙ্ক্তির অর্থ এই—সহজিয়া
 সাধনায় একমাত্র রস আশ্বাদন করিবার উদ্দেশ্যেই রসিক-রসিকার মিলন বিহিত
 হইয়াছে, অতঃ কখন কারণে (পরে বলা হইতেছে) নহে। রস আশ্বাদনের
 জন্য রসিক-রসিকার মিলনের প্রয়োজন কি? তাহারই উত্তরে বলা হইল
 (২য় পঙ্ক্তিতে) যে কায়াদি ঘটনে রস উৎপন্ন হয়। রস মনের অনুভূতিজাত,
 কিন্তু ইহা জন্মাইতে হইলে সাধারণতঃ বাহ্য উত্তেজনার প্রয়োজন হয়,

নতুবা হৃদয়ের স্থায়ী ভাবগুলি জাগরিত হয় না, ইহাই আনন্দকারণের মত (পূর্ববর্তী আলোচনা দ্রষ্টব্য)। ভক্তিরসামৃতসিন্ধুতে (দক্ষিণ, ১।২) আছে—

বিভাবৈরনুভাবৈশ্চ সাদ্বিকৈব্যভিচারিভিঃ ।

স্বাশ্রয়ং হৃদিভক্তানামানীতা শ্রবণাদিভিঃ ॥

এষা কৃষ্ণরতিঃ স্থায়ীভাবো ভক্তিরসো ভবেৎ ।

অর্থাৎ, কৃষ্ণরতি বিভাব অনুভাব প্রভৃতি দ্বারা শ্রবণাদি কর্তৃক আনন্দনীয়ত্ব-রূপে ভক্তজনের হৃদয়ে আনীত হইলে তাহাকে ভক্তিরস বলে। এখানে কৃষ্ণরতির শ্রবণাদি ইন্দ্রিয়গ্রাহ্য, এবং বিভাব অনুভাবাদির প্রভাব স্বীকৃত হওয়াতে তাহার রূপত্বও স্বীকৃত হইল। অতএব বুঝা যাইতেছে যে রস আনন্দন করিতে হইলে রূপত্ব গড়িয়া লইতে হয়, নতুবা উদ্ভেজনা সহজে হৃদয়ে আসিয়া পৌঁছে না, অর্থাৎ রূপত্ব স্বীকৃত না হইলে রস আনন্দনীয়ত্ব-রূপে অনুভব করা যায় না। এই জন্মই বলা হইল “কায়াদি ঘটনে রস।”

পং ৩-৪। কিন্তু রসিক যদি আত্মতৃপ্তির জন্ম (নির্মূল রস আনন্দন করিবার জন্ম নহে) রসিকার সহিত মিলিত হয়, তবে তাহার ফল হয় কেবল মাত্র প্রেমের বিলাস; প্রকৃত রস আনন্দন নহে। এখানে বলা হইল যে স্ত্রীপুরুষ আত্মতৃপ্তির জন্ম মিলিত হইবে না, তাহাদের উদ্দেশ্য হইবে পরম রস আনন্দন, মিলনটা উদ্দেশ্য সাধনের সোপান মাত্র। একটি রাগাত্মিক পদে আছে—

রাগ-সাধনের এমনি রীত ।

সে পথীজনার তেমতি চিত ॥

পদ নং ৭৮৬ ।

অন্যত্র—

আরোপ, রূপ-সাধন আর রস-আনন্দন ।

সহজতত্ত্বগ্রন্থ ।

স্বয়ং ভগবান্ও রস আনন্দন করিবার নিমিত্ত মানুষাশ্রয় হইয়াছিলেন—

নিজ কার্য প্রেম-আনন্দন, এই মনে ।

সেই কার্য লাগি মানুষ-আশ্রয় হৈল ভগবানে ॥

অতএব নায়ক-নায়িকার মিলনে আত্মতৃপ্তির উদ্দেশ্য থাকিবে না, ইহাই বলা হইল।

পং ৫-৮। “কায়াদি ঘটনে রস,” ইহা দ্বিতীয় পঙ্ক্তিতে বলা হইয়াছে। পাছে কেহ ইহার কদর্থ গ্রহণ করে, এই জন্ম তৃতীয় ও চতুর্থ পঙ্ক্তিতে বলা হইল যে এই “কায়া ঘটন” রসভোগের জন্ম, নতুবা তাহাতে বিলাসের উৎপত্তি হয় মাত্র। এই কথা বলিবার কারণ কি, তাহাই এখন বলা হইতেছে।

সাধারণতঃ সামান্য পুরুষ অন্তর্নিহিত গুপ্ত কামের প্রতীমূর্তি, আর সামান্য প্রকৃতি দেহজ রতির প্রতিকৃতি, এই উভয়ের মিলনে বাহ্য কিছু বিলাস-রসের উদয় হয়, এবে অর্থাৎ এই সহজ সাধনায় তাহাতে গতি নাই, বা গমন নিষেধ, অর্থাৎ এই জাতীয় রস আশ্বাদনের জন্ম সহজ-সাধনা অনুষ্ঠিত হয় না। পুরুষ ও স্ত্রীলোক লইয়া যে মিলন তাহাতে সহজ সাধনার বিধি নাই। এখানে এই একটি নূতন কথা পাওয়া যাইতেছে। ইহার অর্থ কি, এখন তাহাই বলা হইতেছে।

পং ৯-১০। পুরুষ ও স্ত্রী এই উভয়েরই বিশিষ্টতা জ্ঞাপক বিভিন্নতা আছে। তাহা বজায় রাখিয়া মিলিত হওয়া ভিন্ন অন্য কোন প্রথায় কি তাহারা মিলিত হইতে পারে না? সহজ-সাধনার নিয়ম এই যে পুরুষ প্রকৃতি হইয়া প্রকৃতির সঙ্গে মিলিত হইবে। এই কথাই এখানে বলা হইয়াছে। সহজ-সাধনার রীতি এই—

আপনি পুরুষ প্রকৃতি হইবে

প্রকৃতি রতি না করে।

রসসারগ্রন্থ।

স্বভার প্রকৃতি হৈলে তবে রাগ রতি।

অমৃতরত্নাবলী।

তত্ত্বজ্ঞান যার হৈল, তাহার সাধন—

প্রকৃতি হইয়া করে প্রকৃতি সেবন॥

নিগূঢ়ার্থপ্রকাশাবলী।

এই জাতীয় বিবিধ উল্লেখ ইতিপূর্বেও করা হইয়াছে (৯নং পদের ব্যাখ্যা দ্রষ্টব্য)। আমি পুরুষ, আর তুমি স্ত্রীলোক এইরূপ ধারণা যতক্ষণ মনে আছে,

ততক্ষণ কামের বশীভূত হইতেই হইবে। ইহা পরিত্যাগ করিতে না পারিলে
প্রেমের সাধনা হয় না।

রমণ ও রমণী তারা দুইজন
কাঁচা পাকা দুটি থাকে।
এক রজ্জু খসিয়া পড়িলে
রসিক মিলয়ে তাকে ॥ পদ নং ৮০৪।

অনুব্র—

দুই ঘুচাইয়া এক অঙ্গ হও
থাকিলে পীরিতি আশ।
পীরিতি সাধন বড়ই কঠিন
কহে দ্বিজ চণ্ডীদাস ॥ পদ নং ৩৮৪।

৪নং পদের ব্যাখ্যায় ৫২-৫৩ পৃষ্ঠায় ইহার বিস্তৃত আলোচনা করা হইয়াছে।
এই জাতীয় সাধনা বড়ই কঠিন, এজন্যই বলা হইয়াছে যে সহজ-সাধনায় কৃতকার্য
“কোটিতে গুটিক হয়।”

পং ১১-১৬। পূর্ববর্তী দুই পঙ্ক্তিতে বলা হইল যে পুরুষ প্রকৃতিভাবাপন্ন
হইয়া প্রকৃতির সঙ্গে মিলিত হইবে, নতুবা রসের সাধনা হইতে পারে না।
এখন স্ত্রীপুরুষের মিলন সম্বন্ধে সাধারণ লোকের কি বিশ্বাস, তাহাই বলা
হইতেছে।

সাধারণতঃ প্রকৃতিপুরুষে যাহা কিছু হয়, তাহাই রতি, প্রেম ইত্যাদি
আখ্যায় প্রচারিত হইয়া থাকে। কিন্তু ইহা ভুল, প্রকৃত প্রেমের লীলা ইহাতে
হয় না। কেন, তাহারই কারণ নির্দেশ করা হইতেছে। যাহারা উক্তরূপ
ধারণার বশবর্তী তাহারাই বলিয়া থাকে যে স্ত্রীপুরুষের মিলনে পুরুষ অধিক
আত্মহারা হয়, কিন্তু স্ত্রীলোক ততটা হয় না, এবং ইহাতে সর্বদাই রস-অনুভবের
তারতম্য হইয়া থাকে। এইরূপ বৈষম্য যেখানে লক্ষিত হয়, সহজমতে তাহাতে
প্রেমের অস্তিত্ব স্বীকৃত হয় না। কারণ—

উভয়ে সমান হৈলে তবে ইহা মিলে।

সাধারণী হৈলে ইথে যায় রসাতলে ॥ প্রেমবিলাস।

দৌহে এক হয়ে ডুবে সিদ্ধ হয় তবে ॥

দৌহার মন ঐক্যভাবে ডুবি এক হয় ।

তবে সে সহজসিদ্ধ জানিহ নিশ্চয় ॥

প্রেমানন্দলহরী ।

পুরুষ প্রকৃতি

দৌহে এক রীতি

সে রতি সাধিতে হয় ।

পদ নং ৮১১ ।

অতএব এইরূপ বৈষম্য যেখানে আছে, সেখানে কামের বিলাস হয় ইহা বুঝিতে হইবে । সহজিয়া সাধনায় তাহার স্থান নাই, ইহাই বলা হইল ।

পং ১৭-২১ । সামান্য পুরুষ ও স্ত্রীর কাম-বিলাস সম্বন্ধেই সাধারণতঃ বলা হইয়া থাকে (যেমন কবি বা দার্শনিকগণ বর্ণনা করেন) যে তাহাদের উভয়েরই নয়ন হইতে বাণ নির্গত হয় । এই বাণ কামের, প্রেমের নহে । কামনার তীব্রতাই বাণ স্বরূপ, রতি অর্থাৎ নিশ্চল অনুরাগে কামের তীব্রতা নাই, কাজেই কাম-বাণের ন্যায় রতির বাণ কল্লিত হয় না । ভক্তিরসামৃতসিঙ্কুর ১।৩।১৯ শ্লোকে বলা হইয়াছে যে অন্তঃকরণের স্নিগ্ধতাই রতির লক্ষণ । অতএব এই স্নিগ্ধতা হইতে কাম-বাণের উদ্ভব হয় না । যদি রতির বাণই নাই, তবে তাহা নির্গত হয় কি করিয়া ? সুতরাং বুঝা যাইতেছে যে বাণ সম্বন্ধে যাহা বলা হয়, তাহা কাম বিষয়ক, কিন্তু রতি বিষয়ক নহে । আকাঙ্ক্ষার তীব্রতার জন্মই কাম দাবানল-স্বরূপ, আর স্নিগ্ধতার জন্ম রতি শীতলতা-সম্পন্ন । অতএব সাধারণ পুরুষ প্রকৃতির মিলন সম্বন্ধে রতিপ্রেম প্রভৃতি শব্দ প্রয়োগ করিয়া যাহা বলা হয়, তাহা কাম-বিলাস সম্বন্ধেই প্রযোজ্য, সহজিয়া সাধনায় তাহার স্থান নাই ।

পং ২২-২৮ । রতি ও কামের বিভিন্নতা প্রদর্শন করিয়া, এখন প্রকৃত রসের বর্ণনা করা হইতেছে । জলে কাঠ খড় পচিতে দিলে, তাহা পচিয়া পচিয়া তাহা হইতে যেমন এক প্রকার রস নির্গত হইয়া ঐ কাঠ খড় দ্রব করিয়া ফেলে, সেইরূপ প্রণয়-পাত্রের জন্ম কুল ইত্যাদি বিসর্জন করিলে, সেই ত্যাগের উপর যে আসক্তি জন্মে তাহাই রস নামে খ্যাত । এই উপমায় প্রণয় পাত্রকে সলিলের সহিত, কুলকে কাঠ খড়ের সহিত, এবং দ্রব্যজাত রসকে প্রেমরসের সহিত তুলনা করা হইয়াছে । প্রেম যেন কুলরূপ কাঠখড় জাতীয়

বস্তুর অভ্যন্তরস্থ পদার্থ, এই জন্মই তাহাকে আধেয় বলা হইয়াছে। পচিতে পচিতে যখন কাঠরূপ কুল দ্রব হয়, তখন তাহা হইতে লোভরূপ আসক্তি জন্মে। তাহার বিলাসে বাহা উৎপন্ন হয় তাহাই রস।

কুল অর্থ, বংশ, মর্যাদা ইত্যাদি। ইহা সীমা বা বন্ধনী অর্থেও ব্যবহৃত হয়, যেমন অকুল সাগর, নদীর কুল, ইত্যাদি। সমাজে সতী দ্রীকে কুলনারী বলে, কারণ তাহা দ্বারা বংশের মর্যাদা লজ্জিত হয় না, অথবা সে কুলাচরিত প্রথার গণ্ডী অতিক্রম করে না। তন্মধ্যে কুলনায়িকা শব্দের ব্যবহার আছে, সেখানে ইহা বিশিষ্টার্থে প্রযুক্ত হইয়াছে। আলোচ্য পদটিতে কুল শব্দও বিশিষ্টার্থজ্ঞাপক, পুরুষের কুল অর্থে পুরুষের পুরুষত্ব, যতদিন তাহার ঐ কঠোরতা বজায় থাকে, ততদিন সে প্রেমের রাজ্যে পৌঁছিতে পারে না, কামের বিলাস করিতে পারে মাত্র। প্রণয়পাত্ররূপ সলিলে যখন তাহা দ্রব হয়, তখন প্রেম জন্মিতে থাকে। এইরূপে পচিতে পচিতে লোভরূপ আঠাল আসক্তি জন্মে; তখন তাহার বিলাসে সে বস্তুর উৎপত্তি হয়, তাহাই রস। সহজধর্ম্যে রসের সংজ্ঞা এইরূপ। সহজ যে সহজ নয়, তাহার তাৎপর্য্যও এই।

লোভ :—রসসারগ্রন্থে আছে—

অনর্থ নিবৃত্তি হৈলে ভক্তি নিষ্ঠা হয়।
নিষ্ঠা হৈলে শ্রবণাশ্রয়ে রুচি উপজয় ॥
সিদ্ধে গতি হৈতে রুচি জন্ময়ে যখন।
আসক্তি-আশ্রয় রুচি জানিহ কারণ ॥
আসক্তি প্রগাঢ় হৈলে ভাব সিদ্ধ হয়।
উত্তম সাধক সেই প্রেমের আলয় ॥

রসের ক্রমিক অভিব্যক্তির পর্যায় এখানে বিবৃত হইয়াছে।

পং ২৯-৩২। এই পদটি পদকল্পতরুতেও উদ্ধৃত হইয়াছে। সেখানে শেষ চারি পঙ্ক্তিতে বিদ্যাপতি ঠাকুরের ভণিতা পাওয়া যায়, যথা—

ভণে বিদ্যাপতি চণ্ডীদাস তথি
রূপনারায়ণ-সঙ্গে।
দুহুঁ আলিঙ্গন করল তখন
ভাসল প্রেম-তরঙ্গে ॥

আর চণ্ডীদাসের পদাবলীতে (আমরা যাহা উদ্ধৃত করিয়াছি) ইহা এইরূপে আছে—

বাশুলী-আদেশে চণ্ডীদাস তথি
রূপনারায়ণ-সঙ্গে ॥

দুহুঁ আলিঙ্গন করল তখন
ভাসল প্রেমতরঙ্গে ॥

সহজিয়ারা চণ্ডীদাস ও বিষ্ণাপতিকে নবরসিকের দলে টানিয়া আনিয়াছেন। কয়েকটি সহজিয়া পদেও বিষ্ণাপতির ভণিতা পাওয়া বাইতেছে। আলোচ্য পদটি তন্মধ্যে অন্যতম। রসসার নামে সহজিয়াদের একখানা গ্রন্থ আছে, তাহাতে বিষ্ণাপতির ভণিতায় নিম্নলিখিত পদ দুইটি উদ্ধৃত হইয়াছে—

সহজ না জানে যে জন আচরে
সামান্য মানিহ তায় ।

সহজ আচার সহজ বিচার
সহজ বলিব কায় ?

সহজ ভজন সহজাচরণ
এ বড় বিষম দায় ।

সকাম লাগিয়া লোভেতে পড়িয়া
মিছা সুখ ভুঞ্জে তায় ॥

বামন হইয়া যেন শশধর
ধরিবারে করে আশ ।

কিন্নরের গান শুনিয়া যেমন
ভেকে করে অভিলাস ॥

সুধাকর দেখি খণ্ডোৎ যেমন
সমভেজ্ হৈতে চায় ।

শত শত কোটি করিয়ে উদয়
তবু সম নাহি হয় ॥

শিব নৃত্য দেখি ভূতগণ নাচে
দেবের সমাজে হাস ।

পারিজাত পুষ্প দেবের ছল ভ
কপিতে করয়ে আশ ॥

তেমতি নৃত্য সহজ শুনিয়া
সামান্য দেহেতে যজে ।

না জানে মরম করে আচরণ
কেবল রোরবে মজে ॥

লছিমা সহিতে দেহ বাড়াইলু
হেরিয়ে ও-রূপ তার ।

সেই অনুভবে ব্রজভাব লইয়া
গোপী অনুগত সার ॥

নিজ দেহ যেন ঘটায় সহজ
আচরিতে করে আশ ।

ভূণে বিজ্ঞাপতি কোটি জন্ম তার
রোরবেতে হবে বাস ॥

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একদিন রজকিনী সনে
চণ্ডীদাসে বসি কয় ।

শ্যামের পীরিতি শুনলো প্রেয়সী
যেমন অমিয়াময় ॥

আপনি পুরুষ প্রকৃতি হইবে
প্রকৃতি রতি না করে ।

তোমা আমা যেন রতি শূন্য হেন
এমতি হইলে পারে ॥

এক বহি আর পুরুষ নাহিক
 সেই সে মানুষ-সার ।
 তাহার আশ্রয় প্রকৃতি না হলে
 কোথা না পাইবে পার ॥
 তোমা আমা যেন কল্পিত পীরিতি
 রতি বাড়াইয়া অতি ।
 এমতি হইলে তবে সে পাইবে
 ভণে কবি বিজ্ঞাপতি ॥

প্রথম পদটিতে বিজ্ঞাপতি নিজেই বলিতেছেন যে তিনি লছিমার সহিত সহজসাধনা করিতেন, আর দ্বিতীয় পদে চণ্ডীদাস যে রামীর সহিত সহজসাধনা করিতেন তাহার সন্ধান তিনি দিয়াছেন। অর্থাৎ নবরসিকের দলের অন্তর্ভূত বলিয়া যেন বিজ্ঞাপতি ও চণ্ডীদাস উভয়েই উভয়ের গুহ সাধন-তত্ত্ব অবগত ছিলেন। আবার এই দুইটি পদ পাওয়া যাইতেছে নরোত্তম ঠাকুরের ভণিতায়ুক্ত রসসার নামক গ্রন্থে। নরোত্তম বৃন্দাবনে শিক্ষিত হইয়াছিলেন, এবং তাঁহার সময়ে কবি গোবিন্দদাস বিজ্ঞাপতির ভাষা অনুকরণ করিয়া অনেক বৈষ্ণব-পদ রচনা করিয়াছিলেন। কাজেই বিজ্ঞাপতির ভাষার সহিত যে তিনি সুপরিচিত ছিলেন, তাহাতে কোনই সন্দেহ নাই। এই অবস্থায় উদ্ধৃত পদ দুইটি মিথিলার কবি বিজ্ঞাপতির নামে চালাইবার প্রয়াস তাঁহার হইতেই পারে না। বোধ হয় বিজ্ঞাপতি নামে কোন বাঙ্গালী কবি এ দেশে প্রতিষ্ঠা লাভ করিয়াছিলেন, অথবা বিজ্ঞাপতির নামে এই সকল পদ পরবর্তী কালে রচিত হইয়া থাকিবে।

আলোচ্য পদাংশে বলা হইয়াছে যে চণ্ডীদাস ও রূপনারায়ণ প্রেমতরঙ্গে ভাসিয়া উভয়ে উভয়কে আলিঙ্গন করিয়াছিলেন। এই চণ্ডীদাস যে বড় চণ্ডীদাস নহেন, তাহার বিস্তৃত আলোচনা সতীশ চন্দ্র রায় মহাশয় সাহিত্য-পরিষৎ হইতে প্রকাশিত পদকল্পতরুর ভূমিকায় (১২৬-১৬৫ পৃঃ দ্রষ্টব্য) করিয়াছেন। পদকল্পতরুর চতুর্থ শাখার ২৬শ পল্পবে কতকগুলি সহজিয়া পদের সহিত উক্ত প্রকার মিলন-ঘটিত কয়েকটি পদ সন্নিবিষ্ট হইয়াছে। পদকল্পতরু অষ্টাদশ শতাব্দীর মাঝামাঝি সময়ে রচিত (সংগৃহীত) হইয়াছিল। অতএব দেখা যাইতেছে যে ঐ সময়ের পূর্বেই প্রেমমূলক বর্তমান সহজিয়া

ধর্মের পূর্ণ অভিব্যক্তি হইয়াছিল, এবং তাহার প্রভাব বৈষম্যগণও অস্বীকার করিতে পারেন নাই ।

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প্রেমের আকৃতি— দেখিয়া মুরতি
মন যদি তাতে ধায় ।

তবে ত সে জন রসিক কেমন
বুঝিতে বিষম দায় ॥

আপন মাধুরী দেখিতে না পাই
সদাই অন্তর জ্বলে ।

আপনা আপনি করয়ে ভাবনি,
“কি হৈল, কি হৈল,” বলে ॥

মানুষ অভাবে মন মরিচিয়া
তরাসে আছাড় খায় ।

আছাড় খাইয়া করে ছটফট
জীয়েন্তে মরিয়া যায় ॥

তাহার মরণ জানে কোন জন
কেমন মরণ সেই ।

যে জনা জানয়ে সেই সে জীয়ে
মরণ বাঁটিয়া লেই ॥

বাঁটিলে মরণ জীয়ে দুই জন
লোকে তাহা নাহি জানে ।

প্রেমের আকৃতি পরে ছটফট
চণ্ডীদাস ইহা ভণে ॥

ব্যাখ্যা

সহজিয়া মতে রস কাহাকে বলে, তাহা পূর্ববর্তী পদে বর্ণনা করা হইয়াছে; এখন প্রকৃত রসিকের লক্ষণ কি, তাহাই বলা হইতেছে। যাহারা বাহিরের কোন সৌন্দর্য্য দেখিয়া প্রেমে পতিত হয়, তাহার রসিক নহে। প্রকৃত রসিক ব্যক্তিগণের প্রাণ স্বতঃই রসপ্রেমে ভরপুর হইবে, এবং তাহার আবেগে তাহার ছট্‌ফট্‌ করিয়া কস্তুরী মুগের ন্যায় উন্মত্ত হইবে। রূপ দেখিয়া যে প্রেম জন্মে, সেই প্রেম রসের নহে, ভোগের, তাহাতে রসিক হওয়া যায় না। নিজের মন প্রথমতঃ প্রেমে ভরপুর করিয়া নিজেকে প্রেম-পাগলা করিতে হইবে; যে ইহা করিতে পারে সেই প্রকৃত রসিকপদবাচ্য। ইহাই সহজিয়া মত।

পং ১-৪। বাহিরের কোন সৌন্দর্য্যপূর্ণ মূর্ত্তি দেখিয়া যদি কাহারও মন তাহার প্রতি ধাবিত হয়, এবং তাহাতে প্রেম মূর্ত্ত হইয়া উঠে, তবে সে জন যে কিরূপ রসিক তাহা বুঝিতে পারা যায় না। নিজের প্রাণে রস না থাকিলে, বাহিরের রসে রসিক হওয়া যায় না, ইহাই সহজিয়া মত। তবে রসিক কাহাকে বলে? ইহারই উত্তরে প্রকৃত রসিকের লক্ষণ কি, তাহা বর্ণিত হইতেছে।

পং ৫-৮। কস্তুরী মুগের অভ্যন্তরে স্বভাবতঃই কস্তুরী জন্মিয়া থাকে। মুগ ইহার গন্ধ অনুভব করে, অথচ তাহার কারণ বুঝিতে পারে না। তখন সে ছট্‌ফট্‌ করিতে করিতে উন্মত্তের মত চতুর্দিকে ছুটিতে থাকে। প্রকৃত রসিক ব্যক্তির স্বভাবও কস্তুরী মুগের ন্যায়। রস তাহার প্রাণে স্বভাবতঃই জন্মিয়া থাকে, আর তাহার প্রভাবে, নিজের মন যে মাধুর্য্যপূর্ণ হইয়াছে তাহা বুঝিতে না পারিয়া, সে সর্ব্বদাই অন্তরে জ্বালা অনুভব করে। তখন সে পাগলের ন্যায় হয়, এবং “কি হৈল, কি হৈল” বলিয়া ভাবনা করিতে করিতে আপনা আপনি অস্থির হইয়া উঠে। নিজের অন্তর্নিহিত রসের প্রভাবে রসিকের মনে এই প্রকার অস্থিরতা উপস্থিত হয়। চঞ্চল ভাব দেখিলেই যেমন বুঝা যায় যে মুগের অভ্যন্তরে কস্তুরী জন্মিয়াছে, সেইরূপ রসসঞ্চয়ের দরুন উন্মত্ততা দেখিলেই বুঝা যায় যে লোকটি রসিক হইয়াছে।

পং ৯-১২। যখন রসিকের এইরূপ অবস্থা হয়, তখন সে রস আত্মদান করিবার জন্য ব্যাকুল হইয়া উঠে। কিন্তু লোক অভাবে ত রস আত্মদান করা

যায় না, কারণ পূর্বেই বলা হইয়াছে যে “কায়াদি-ঘটনে রস” আশ্বাদনযোগ্য হয়। লোকে রসিক হইতে পারে, কিন্তু রস আশ্বাদনীয় করিতে হইলে, রূপত্বের সৃষ্টি করিয়া লইতে হয় (পূর্ববালোচনা দ্রষ্টব্য)।

চরিতামৃতে আছে—

দর্পণাষ্ঠে দেখি যদি আপন মাধুরী।
আশ্বাদিতে লোভ হয়, আশ্বাদিতে নারি ॥
বিচার করিয়ে যদি আশ্বাদ উপায়।
রাধিকা-স্বরূপ হৈতে তবে মন ধায় ॥

আদির চতুর্থে।

এখানে কৃষ্ণের মুখ দিয়া বলানো হইয়াছে যে তাঁহার নিজের মাধুরী আশ্বাদন করিবার জন্ম তাঁহাকে রাধার স্বরূপ হইতে হইয়াছিল। গোড়ীয় বৈষ্ণব শাস্ত্রে লিখিত হইয়াছে যে এই উদ্দেশ্যেই রাধার ভাবকান্তি গ্রহণ করিয়া কৃষ্ণ চৈতন্যরূপে জন্মগ্রহণ করিয়াছিলেন। অতএব অরূপের রূপত্ব কল্পনা রসভোগের জন্ম, আর সেই রসভোগ কিরূপ, তাহা চৈতন্যদেবের ভাবোন্মাদ অবস্থা বর্ণনায় চরিতামৃতে বিবৃত হইয়াছে, যথা—

এই কৃষ্ণের বিরহে উদ্বেগে মন স্থির নহে
প্রাপ্ত্যুপায় চিন্তন না যায়।
যেবা তুমি সখীগণ বিবাদে বাউল মন
কারে পুছৌ কে কহে উপায় ॥
হা হা সখী, কি করি উপায় ?
কাহা করৌ কাহা যাঙ কাহা গেলে কৃষ্ণ পাঙ
কৃষ্ণ বিনু প্রাণ মোর যায় ॥

মধ্যের সপ্তদশে।

কাহা করৌ, কাহা পাঙ ব্রজেন্দ্রনন্দন।
কাহা মোর প্রাণনাথ মুরলী-বদন ॥
কাহারে কহিব কেবা জানে মোর দুঃখ।
ব্রজেন্দ্রনন্দন বিনু ফাটে মোর বুক ॥

মধ্যের দ্বিতীয়ে।

অথবা—

বাহে বিবজ্জালা হয় ভিতরে আনন্দময়
 কৃষ্ণপ্রেমার অন্তত চরিত ॥
 এই প্রেমার আশ্বাদন তপ্ত ইক্ষু চর্বণ
 মুখ জ্বলে না যায় ত্যজন ।
 সেই প্রেমা যার মনে তার বিক্রম সেই জানে
 বিষামৃতে একত্র মিলন ॥ মধোর দ্বিতীয়ে ।

ইহাকেই বলে “আপনা আপনি, করয়ে ভাবনি, কি হৈল কি হৈল বলে,” এবং এই ভাবেই “সদাই অন্তর জ্বলে ।” “মানুষ অভাবে যে মন তরাসে আছাড় খায়, এবং আছাড় খাইয়া ছটফট করে,” তাহার দৃষ্টান্ত চৈতন্যদেবের জীবনে আমরা দেখিতে পাই । ভগবৎপ্রেম আগে তাঁহার হৃদয়ে জন্মিয়াছিল, তারপরে তিনি কৃষ্ণের খোঁজে বাহির হইয়াছিলেন । প্রকৃত রসিক বলিতে কোটিতে গুটিকের মধ্যে তিনিই পড়েন, অণু সকলে ধর্ম্মাত্মা বা গোস্বামী ছিলেন সন্দেহ নাই, কিন্তু এমন প্রেমপাগলা চৈতন্যদেবের মত জগতে খুব কম লোকই হইয়াছেন । বোধ হয় সহজিয়ারা তাঁহাকেই আদর্শ করিয়া প্রকৃত রসিকের লক্ষণ বর্ণনা করিয়াছেন । কোন বৈষ্ণবের ইহাতে আপত্তি করিবার কোনই কারণ নাই । আলোচ্য পদটিতে এমন কথা কোথাও বলা হয় নাই যে, যে রস সম্বন্ধে ইহাতে আলোচনা হইয়াছে, তাহা ভগবৎসম্বন্ধীয় নহে । সহজিয়ারা যে কেবল মাত্র প্রাকৃত প্রকৃতি-পুরুষেরই উপাসনা করে, এই ভ্রান্ত ধারণা অনেকের হৃদয়ে বদ্ধমূল হইয়া গিয়াছে । ইহা যে অমূলক, তাহা যে কয়টি রাগাঙ্গিক পদ লইয়া আমরা আলোচনা করিয়াছি, তাহাতেই প্রকাশ পাইয়াছে । উন্নততর রসের ধারণা যে তাহাদের ছিল না, এমন কথা কোন নিরপেক্ষ ব্যক্তি বিশ্বাস করিতে পারে না । অমৃতরসাবলী নামে সহজিয়াদের একখানা গ্রন্থ আছে । তাহাতে রস-সম্বন্ধে বাহা লিখিত হইয়াছে, তাহা এই—

বাহের আন্ধার মনের আন্ধার
 দুই কৈল নাশ ।
 নাশ হইলে তিঁহ করেন প্রকাশ ॥
 রসপ্রেম জন্মাইয়া মূর্ত্তিমান কৈল ।
 সেই কালে শ্রীরূপ আসি দরশন দিল ॥

কি ক্ষণে দেখিলাও তারে আকুল করিল মোরে
 ধড়ে প্রাণ নাই সেই হৈতে ।
 আকাশে তাঁহার গুণ মুখে বাক্য নাহি কন
 ভয় নাই মায়াতে বধিতে ॥
 রসগুণে রস বশ অতি বড় কর্কশ
 জীবন থাকিতে হৈল মরা ।
 অন্তরে প্রেমাকুর বাহে অতি কঠোর
 বার হয় সেই জন সারা ॥

উন্নততর রসের ধারণা এই পদেও পাওয়া যায় । এই ধরনের উক্তি অনেক সহজিয়া গ্রন্থেই আছে । সহজধর্মের এই উজ্জ্বল দিক্টার প্রতি দৃষ্টিপাত করিলে অনেক নূতন তত্ত্বের সন্ধান পাওয়া যায় ।

আলোচ্য পদাংশের অর্থ এই—সাধকের মনে রস জন্মিয়াছে, এখন সেই রস আশ্বাদন করিবার জন্ত মানুষের (রূপের, নতুবা রস আশ্বাদন করা যায় না) অভাবে তাহার মন আছাড় খাইয়া ছটফট করিতে করিতে জীয়েন্তে মরিয়া যাইতেছে (যেমন ভাবোন্মাদ অবস্থায় চৈতন্যদেবের হইয়াছিল) । এখানে একটি প্রচ্ছন্ন উপমার সাহায্যে এই ভাব ব্যক্ত করা হইয়াছে । তৃণাকুল মৃগ মরুভূমিতে জলের আশায় প্রবেশ করিয়াছে । মৃগতৃষ্ণিকার পশ্চাতে ছুটিতে ছুটিতে জল না পাইয়া, চমকিত ও ভীত হইয়া, আছাড় খাইতে খাইতে ছটফট করিয়া সে পিপাসায় শুষ্ককণ্ঠ হইয়া প্রাণত্যাগ করিতেছে । প্রকৃত রসিকের অবস্থাও ঐ মৃগের ন্যায় হইয়া থাকে । জীয়েন্তে মরা সম্বন্ধে ইতিপূর্বে ৬৮-৭০ পৃষ্ঠায় আলোচনা করা হইয়াছে ।

পং ১৩-২০ । এইরূপ মরণ যে কি, তাহা যে জানে সেই অমরত্ব লাভ করিয়া চিরজীবী হয়, এবং এইরূপ মরণই শ্লাঘ্য ।

যদি রসিকরসিকা উভয়েরই এইরূপ প্রেম-সমাধি হয়, তবে উভয়েই অমরত্ব লাভ করিতে পারে । সাধারণ লোকে ইহা বুঝিতে পারে না ।

চণ্ডীদাস বলেন যে যখন প্রেম এইরূপে মূর্ত হইয়া উঠে, তখন সাধক উদ্ধারপ্রাপ্ত ছটফট করিতে থাকে । ইহাই প্রকৃত রসিকের লক্ষণ ।

ব্যাখ্যা

পং ১-৪। এই পদটির সহিত বঙ্গীয় সাহিত্য-পরিষৎ হইতে প্রকাশিত চণ্ডীদাসের পদাবলীতে আক্ষেপানুরাগ বিভাগে সন্নিবিষ্ট অনেক পদের ভাবগত মিল আছে। তন্মধ্যে ৩৮৭ সংখ্যক পদ আলোচ্য এই অংশটির সহিত অনেকাংশে তুলনীয় হইতে পারে।

প্রেম-সুধানিধি=প্রেমরূপ সমুদ্র; চণ্ডীদাস বহু স্থানে প্রেমকে বড় জলাধারের সহিত তুলনা করিয়াছেন, যথা—

পীরিতি-রসের	সাগর দেখিয়া ইত্যাদি, ৩৮৭ সং পদ।
পীরিতি-সায়রে	সিনান করিব ইত্যাদি, ৩৯০ সং পদ।
পীরিতি-রসের	সায়র মথিয়া ইত্যাদি, ৩৭৯ সং পদ।

উপরে শেহালা দল। উক্ত ৩৮৭ সং পদে আছে—

গুরুজন-জালা জলের সেহলা, ইত্যাদি।

“দল” প্রয়োগে অগ্ন্যাগ্ন আবর্জনাও বুঝাইতেছে, যথা—

কুল-পানীফল- কাঁটাতে সকল
সলিল ঢাকিয়া আছে ॥
কলঙ্ক-পানায় সদা লাগে গায়
ইত্যাদি, ঐ।

অতএব শেহালাদল অর্থে রূপকভাবে গুরুজন-জালা, কুলকণ্টক, কলঙ্কপানা ইত্যাদি বুঝাইতেছে। এই সকল বাহ্য আবর্জনা “ছানিয়া” অর্থাৎ অপসারিত করিয়া প্রেমজল পান করিতে হয়। সমুদ্রে সাধারণতঃ শেওলা জন্মে না, এজন্য উক্ত ৩৮২ সং পদে শেওলার উপমার সামঞ্জস্য রক্ষা করিবার জন্য “প্রেমসাগরকে” “প্রেম-সরোবর”ও বলা হইয়াছে।

মৰ্ম্যার্থ :—প্রেমসমুদ্রের জল কেমন, এবং তাহা কত গভীর, তাহা আমি জানি না, কিন্তু ঐ জলের উপরে গুরুজন-জালা, কুলকণ্টক প্রভৃতি শৈবালরূপে অবস্থান করে, তাহা জানি। এই সকল আবর্জনা অপসারিত না করিতে পারিলে প্রেমজল পান করা যায় না—ইহাই মৰ্ম্যার্থ। আধ্যাত্মিক ব্যাখ্যায় কুল অর্থে সীমাবদ্ধতা, রূপধর্ম্মত্ব ; ইহার বিনাশেই অরূপের সন্ধান পাওয়া যায়। ধর্ম্মের পথে প্রগতির অন্তরায় বলিয়া ইহা পরিত্যাজ্য।

পং ৫-৮। মৰ্ম্যার্থ :—কিরূপ দক্ষ হইলে এই সাগরে ডুব দেওয়া যায়, এবং লোকেরা কি জন্ত এই সাগরে ডুব দেয়, তাহা আমি জানি না, কিন্তু আমি দেখিতেছি যে আমি নিজে ডুবিয়াও কোন রত্ন চিনিতে পারিলাম না, পিছনে পড়িয়া রহিলাম। তবে অর্থাৎ পার্থিবতার গণ্ডির মধ্যে, এইজন্তই অপার্থিব প্রেমরত্নের সন্ধান করিতে পারি নাই।

না জানি কি লাগি ডুবে ?

ডুবিলার কারণ এই—

সিন্ধুর ভিতরে

অমিয়া থাকয়ে

৩৪০ সং পদ।

অর্থাৎ অমৃত আশ্বাদন করিবার জন্ত। কেবল প্রেমিকেরাই নহে, কবি, দার্শনিক, বৈজ্ঞানিক প্রভৃতি সকলেই এই অমৃতের প্রয়াসী। অমৃতপানে অমরত্ব লাভ করা যায়। কবি, দার্শনিক ও বৈজ্ঞানিকগণ তত্ত্বের সাগর মন্থন করিয়া জ্ঞানামৃত ও অমরত্ব আহরণ করেন, প্রকৃত রসিকেরা আনন্দচিন্ময়রসে মগ্ন হন, আর নিম্নস্তরের ঘাঁহারী পঞ্চভূতাত্ত্বক দেহের প্রাধান্য স্বীকার করেন, তাঁহারাও জননোৎপাদন-ক্রিয়া দ্বারা বংশপরম্পরায় অমরত্ব-লাভের প্রয়াসী। বিভিন্ন প্রণায় সকলেই সেই অমরত্বের সাধনা করিতেছে।

পং ৯-১২। প্রেমসমুদ্রে যে কি রত্ন আছে, এবং তাহার স্বরূপ কি, সেই সম্বন্ধে আমার স্পষ্ট ধারণা নাই, তথাপি আমার মনে হয় যে ঐ জিনিষটার গুরুত্ব অত্যন্ত বেশী। আমার এই মনোভাব বুঝিতে পারিয়া প্রেমনিষ্ঠার প্রতিমূর্তি যুগল রাধাকৃষ্ণ আমার এই সঙ্কোচের প্রতি লক্ষ্য করিয়া ঈষৎ হাস্য করিতেছেন।

“নন্দের নন্দন” বিশেষণে শ্রীকৃষ্ণের মাধুর্য্যভাবাত্মক বৃন্দাবন-লীলার প্রতি লক্ষ্য করা হইয়াছে, যেহেতু সহজিয়ারা একমাত্র মাধুর্য্যেরই উপাসক।

পং ১৩-১৬। মর্মার্থ :—কেবল যে প্রেমবিজ্ঞ কিশোরী কিশোরী আমার অবস্থা দেখিয়া হাসিতেছেন, তাহা নহে, ভাবরূপা সখীগণও আনন্দে করতলনি করিয়া সেই সচ্চিদানন্দস্বরূপ যুগল মূর্তিতে একীভূত হইয়া মিশিয়া গেলেন, যেন আমাকে শিক্ষা দিলেন যে রূপের সহিত স্বরূপের ঐরূপ মিলনেই প্রেমের পরাকাষ্ঠা লাভ হয়।

এখানে “স্বরূপ” ও “রূপ” এই দুইটি বিশিষ্টার্থজ্ঞাপক শব্দ ব্যবহৃত হইয়াছে। “স্বরূপ” সম্বন্ধে ইতিপূর্বে (পূর্ববর্তী অনুবন্ধের ২০-২৩; ৬২-৬৩ পৃষ্ঠায়) কিঞ্চিৎ আলোচনা করা হইয়াছে, তাহা ভূমিকাস্বরূপ গ্রহণ করিয়া আলোচ্য পদাংশের মর্মার্থে প্রবেশ করিতে হইবে। স্বরূপ=স্ব-রূপ, বা আত্মরূপ; এই সম্বন্ধে জ্ঞানলাভ করার কথা এখানে বলা হইয়াছে। তদ্ব্যখ্যায় শাস্ত্রাদিতে বলা হইয়া থাকে—“ঘটপটাদিবৎ”। মৃত্তিকা দ্বারা যে সকল ঘটপটাদি প্রস্তুত হয়, তাহার প্রত্যেকেই বিভিন্ন আকৃতি বিশিষ্ট, কিন্তু ইহাদের প্রকৃত স্বরূপ কি? বিভিন্ন সংজ্ঞায় ইহারা অভিহিত হইলেও, একমাত্র মৃত্তিকাই ইহাদের কারণভূত। এইরূপ বিচারে উক্ত বস্তু সকলের মূলতত্ত্বে উপস্থিত হওয়া যায়। সেইরূপ আত্মতত্ত্ব বিচারেও দেখা যায় যে আমি, তুমি, ঘট, পটাদি বিভিন্ন সংজ্ঞা মাত্র, সর্ববিশ্বব্যাপী এক অনন্ত আত্মা ইহাতেই সকলের উদ্ভব হইয়াছে, ইহাই আত্মতত্ত্বের প্রধান জ্ঞাতব্য বিষয়। রসরত্নসারে আছে—

বস্তু আর আত্মা শুধু ইন্দ্রিয় বিবাদ ॥

যাবৎ না আত্মজ্ঞান জনময় মনে।

বস্তু লয়ে ক্রীড়া করে ইন্দ্রিয়ের গণে ॥

ফলে বস্তু আর আত্মা ভেদহীন সব।

আত্মজ্ঞানে বস্তু পাধি হয় অসম্ভব ॥

ভেদবুদ্ধি চিতে তবে তিলেক না রয়।

আত্মরূপ বলি বিশ্বে উপলব্ধি হয় ॥

ইহাই হইল আত্মজ্ঞান বা স্বরূপতত্ত্ব, এবং উক্তরূপ জ্ঞান জন্মিলেই প্রকৃত রূপতত্ত্বে প্রবেশ করা যায়। এই জন্মই আলোচ্য পদাংশে বলা হইয়াছে—

স্বরূপ জানিয়ে

রূপে মিশাইয়ে

ভাবিয়া দেখিলে হয়।

অন্যত্র আছে—

স্বরূপ-তরণী বাহিতে বাহিতে
রূপ-কর্ণধার মিলে ।
তরণী সেবিয়া শ্রীরূপ ভাবিয়া
বাহিয়া চলিলা হেলে ॥ সহজিয়া সাহিত্য, ৬৩ পৃঃ ।

অতএব সহজিয়া সাধনায় স্বরূপ ও রূপের মিশ্রণ না করিতে পারিলে সিদ্ধি লাভ করা যায় না—

স্বরূপ রূপেতে একত্র করিয়া
মিশাল করিয়া খুবে ।
সেই সে রতিতে একান্ত করিলে
তবে সে শ্রীমতী পাবে ॥ ঐ, ৩৮ পৃঃ ।

কি প্রশালীতে ইহা করা যায় ?

রূপের আবেশ রূপে অনুগত
রূপেতে সকল রয় ।
ইহা বুঝি যেবা একান্ত করিলে
স্বরূপে মিশাল হয় ॥ ঐ, ৪০ পৃঃ ।

অর্থাৎ সর্বদা রূপের আবেশ হৃদয়ে জাগাইয়া রাখিতে হইবে, অর্থাৎ সকল বস্তুতেই অনন্ত রূপের সত্ত্বা অনুভব করিতে হইবে । কিন্তু শুষ্ক জ্ঞানের দ্বারা ইহা বুঝিলে চলিবে না । সহজিয়ারা প্রেমমার্গের উপাসক, তাই শাস্ত্রাদির জ্ঞানগর্ভ বিচার-মূলক যুক্তিতর্কের পন্থা পরিত্যাগ করিয়া তাঁহারা একমাত্র প্রেমের পন্থাই নির্দেশ করিয়াছেন । প্রেম অবলম্বনে আত্মতত্ত্ব হইতে রূপতত্ত্ব উপস্থিত হইতে হইবে, ইহাই তাঁহাদের ধর্মের গূঢ়মর্ম্ম ।

রসের মানুষ প্রেম সরোবরে
রাগের মানুষে পাবে ।
প্রেম সরোবরে জনম লইয়া
রূপে মিশে তনু রবে ॥ ঐ

রসিক মানুষ প্রেম সরোবরে অবগাহন করিয়া রাগের মানুষ হইতে পারিলে রূপতন্ময়তা প্রাপ্ত হইতে পারে। আলোচ্য পদাংশেও প্রেমের পন্থাই নির্দেশ করা হইয়াছে বলিয়া “নন্দের নন্দন কিশোরা কিশোরী” এবং “সখীগণের” উল্লেখ রূপকভাবে করা হইয়াছে।

পং ১৭-২০। মর্ম্মার্থ:—যে ব্যক্তি উক্তরূপ মহাভাবের আশ্রয় গ্রহণ করিয়া সহজ সাধনায় প্রবৃত্ত হয়, সেই প্রকৃত তথ্যের সন্ধান পায়। সে নিজ শক্তির প্রভাবেই সিদ্ধি লাভ করিয়া মুক্ত হয়, এবং নিজের দৃষ্টান্ত দ্বারা প্রবুদ্ধ করিয়া (চৈতন্যদেবের ন্যায়) অপরকেও মুক্তির পথ প্রদর্শন করে। তাহার উদ্ধারের জন্য অন্য কোন দৈব শক্তির সাহায্যের প্রয়োজন হয় না।

আপনি ভরিয়ে ইত্যাদি। অন্য একটি পদেও আছে—

সে আপনার গুণে

তরিল আপনে

তাহারে তরাবে কে ? ৮২১ নং পদ।

পুরাণাদিতেও এইরূপ উক্তির সন্ধান পাওয়া যায়। নারদভক্তিসূত্রে (১।৫০) আছে—“স তরতি লোকাংস্তারয়তি”, অর্থাৎ সে নিজে তরে, এবং অন্তকে তরায়। বৃহন্নারদীয় পুরাণেও আছে—“পণ্ডিতগণ বলেন যে, যে ব্যক্তি হরি সেবায় নিযুক্ত হইয়া আপনাকে সংসার সাগর হইতে নিস্তার করে, সে জগতকেই নিস্তার করে (৯।১২৮ সূত্র দ্রষ্টব্য)।

পং ২১-২৪। মর্ম্মার্থ:—চণ্ডীদাস বলিতেছেন যে এক লক্ষ লোকের মধ্যে একজন মাত্র এইরূপ সাধনায় সিদ্ধি লাভ করিতে পারে, কারণ সাধারণ লোকেরা ইহার মর্ম্ম বুঝিতে পারে না। বাহারা সৌভাগ্যবশতঃ রূপধর্ম্মের আশ্রয় লাভ করিতে পারে, একমাত্র তাহাঁরাই সহজ সাধনায় সিদ্ধি লাভ করে, অন্তে নহে।

১৬

সহজ' জানিবে^২ কে ।
 নিবিড়^৩ আঁধার হইয়াছে পার
 সহজে^৪ পশেছে^৫ সে ॥^৬
 চান্দের কাছে অবলা যে আছে
 সেই সে রসেরি^৭ সার ।
 বিষেতে অমুতে মিলন একত্রে
 কে বুঝে^৮ মরম^৯ তার ॥
 বাহিরে^{১০} তাহার একটি দুয়ার
 ভিতরে তিনটি আছে^{১১} ।
 চতুর হইয়া ছুইকে ছাড়িয়া
 থাকহ^{১২} একের কাছে^{১৩} ॥
 যেন আশ্রয় ফল ভিতর^{১৪} বাহির^{১৫} ।
 কুসিঁছাল তার কসা ।
 তার আশ্রয়দন জানে সেই জন
 পুরয়ে^{১৬} তাহার আশা ॥^{১৭}
 সহজ জানিতে সাধ লাগে^{১৮} চিতে
 সহজ বিষম^{১৯} বড় ।
 আপনা বুঝিয়া সৃজন দেখিয়া
 পীরিতি করিহ দড় ॥^{২০}
 আপনা বুঝিলে নাথে এক মিলে
 ঘুটিলে মনেরি ধান্ধা ।
 ত্রীরূপ-রূপাতে ইহা পাবে হাতে
 সহজে মন রহু বান্ধা ॥^{২১}

মন্তব্য—

অমৃতরসাবলী নামে সহজিয়া সম্প্রদায়ের এক গ্রন্থ আছে, ইহা বৈষ্ণব
 সহজিয়াদের চতুর্থ গ্রন্থ বলিয়া সহজিয়া সাহিত্যে প্রচারিত হইয়াছে । উক্ত
 পদটি উক্ত গ্রন্থের প্রথমভাগে প্রতিপাদ্য বিষয়ের সূচনা স্বরূপ সন্নিবিষ্ট দেখিতে
 পাওয়া যায় । কাজেই দেখা যাইতেছে যে অমৃতরসাবলীর কবিই এই পদের

প্রকৃত রচয়িতা। এজন্য এই পদমধ্যে ভনিতায় কবির নাম উল্লেখ করিবার প্রয়োজন হয় নাই। কিন্তু চণ্ডীদাসের পদাবলীতে (৭৯৩ নং পদ দ্রষ্টব্য) এই পদটিকে চণ্ডীদাসের ভনিতায় উদ্ধৃত দেখিতে পাওয়া যায়। ইহা ব্যতীত কলিকাতা বিশ্ববিদ্যালয়ের ৩৪৩৬, এবং ২৫২০ নম্বরের পুথিতেও এই পদটি পাওয়া যাইতেছে। এই সকল পুথিতে পদটির যে পাঠ-বিপর্যয় সংঘটিত হইয়াছে, তাহা নিম্নলিখিত পাঠান্তরে প্রদর্শিত হইল।

- ১। এই পঙ্ক্তির পূর্বে একমাত্র চণ্ডীদাসের পদাবলীতে আছে—“সহজ সহজ, সহজ কহয়ে।”
- ২। ৩৪৩৬ নং পুথিতে “বুঝিবে”।
- ৩। সকল পুথিতেই “তিমির”।
- ৪-৪। সহজ জেনেছে, পসং।
- ৫। এড়ই তিন পঙ্ক্তি ২৫২০ নং পুথিতে নাই।
- ৬। পীরিতি, পসং; অন্ত্র, পৃথিবী।
- ৭-৭। জানে মহিমা, ২৫২০ নং পুথি।
- ৮-৮। ভিতরে তাহার, তিনটি দুয়ার, বাহিরে যে কাম হয়, ২৫২০ নং পুথি।
- ৯-৯। একের কাছেতে রয়, ঐ।
- ১০-১০। অতি সে রসাল, পসং।
- ১১। করহ, অন্ত্র।
- ১২। ইহার পরে পরিষদের বহিতে আছে—

অভাগিয়া কাকে স্বাদু নাহি জানে
 মজয়ে নিষের ফলে।
 রসিক কোকিলা জ্ঞানের প্রভাবে
 মজয়ে চূত-মুকুলে ॥
 নবীন মদন আছে এক জন
 গোকুলে তাহার থানা।
 কামবীজ সহ ব্রজবধূগণ
 করে তার উপাসনা।

কিন্তু ৩৪৩৬, ২৫২০ সং পুথিতে নাই।

১৩। করে, অশ্রুত ।

১৪। সহজ, ঐ

১৫। এই চারি পঙ্ক্তি পরিষদের বহিতে নাই। তৎপরিবর্তে আছে—

সহজ কথাটি মনে করি রাখ
শুনলো রজক-ঝি ।
বাশুলী-আদেশে জানিবে বিশেষে
আমি আর বলিব কি ॥

[ইহা ৩৪৩৬, ২৫২০ নং পুথিতে নাই।]

১৬। এই চারি পঙ্ক্তির স্থানে পরিষদের পুথিতে আছে—

রূপ-করুণাতে পারিবে মিলিতে
ঘুচিবে মনের ধাক্কা ।
কহে চণ্ডীদাস পুরিবেক আশ
তবে ত খাইবে সুখা ॥

এবং ৩৪৩৬ সংখ্যক পুথিতে আছে—

কৃষ্ণদাস বলে লাখে এক মিলে
ঘুচায় মনের ধাক্কা ।
শ্রীরূপ-কৃপাতে ইহা পাবে হাথে
সহজে মন রাখ বান্ধা ॥

আর ২৫২০ নং পুথিতে আছে—

কৃষ্ণদাস বলে লাখে এক মিলে
ঘুচাই মোনের ধাক্কা ।
তৎপরে এই চরণটি পূর্ণ হয় নাই ।

দ্রষ্টব্য :—একটি ভনিতাহীন পদকে কিরূপে চণ্ডীদাস ও কৃষ্ণদাসের নামে চালানো হইয়াছে তাহা লক্ষ্য করিবার বিষয় ।

ব্যাখ্যা

পং ১-৩। মর্ম্মার্থ:—সহজতত্ত্ব সম্বন্ধে জ্ঞানলাভ করা অনেকের পক্ষেই সম্ভবপর হয় না, কারণ, অজ্ঞানতারূপ নিবিড় অন্ধকার অতিক্রম না করিলে সহজধর্ম্মে প্রবেশ করিতে পারা যায় না।

টীকা:—পূর্বেরই বলা হইয়াছে যে আলোচ্য পদটি অমৃতরসাবলী গ্রন্থের প্রতিপাদ্য বিষয়ের সূচনা স্বরূপ উক্ত গ্রন্থের প্রথমভাগে সন্নিবিষ্ট হইয়াছে, অতএব এই পদের ব্যাখ্যা ঐ গ্রন্থে বিস্তৃতভাবে করা হইয়াছে, ইহা ধারণা করা যাইতে পারে। বস্তুতঃ অমৃতরসাবলীতে যে তত্ত্ব ব্যাখ্যাত হইয়াছে, তাহার সারমর্ম্ম এই একটিনাত্র পদে প্রাপ্ত হওয়া যায়। অন্ধকার সম্বন্ধে অমৃতরসাবলীতে আছে—

বাহ্যের আন্ধার

মনের আন্ধার

দুই কৈলে নাশ।

নাশ হইলে তিঁহ করেন প্রকাশ ॥

অর্থাৎ বাহ্যের অন্ধকার এবং মনের অন্ধকার এই উভয়ই দূরীভূত হইলে সহজ জ্ঞানালোকে হৃদয় উদ্ভাসিত হয়। বাহ্যের অন্ধকার ইন্দ্রিয়জাত বিকারাদি, আর মনের অন্ধকার অজ্ঞানতা বা অবিজ্ঞাজাত মায়ামোহাদি। অতএব জিতেন্দ্রিয় ও সংযমী না হইলে, এবং অবিজ্ঞা ধ্বংস করিতে না পারিলে সহজধর্ম্মে প্রবেশ করিতে পারা যায় না, ইহাই বলা হইল। এই বিষয়টি অমৃতরসাবলীতে আরও স্পষ্টভাবে বলা হইয়াছে, যথা—

নির্বিকার না হইলে যাইতে না পারে।

বিকার থাকিতে গেলে যাবামাত্র মরে ॥

অমৃতরসাবলী।

কারণ,—

নির্বিকার না হইলে নহে প্রেমোদয়।

প্রেম না জন্মিলে বস্তু স্থায়ী নাহি হয় ॥

অমৃতরসাবলী।

যেহেতু—

পঞ্চভূত আত্মাসহ পশিতে না পারে।

তমোগুণ হাথি সেই করয়ে সংহারে ॥ দেহনির্ণয়।

অতএব ইহাও বলা হইয়া থাকে যে—

নিষ্কামী হইলে পাবে শ্রীরূপচরণ।

রাগসিদ্ধকারিকা।

এই জাতীয় উক্তি প্রায় সকল শাস্ত্রেই দেখিতে পাওয়া যায়। গীতার ৩।৪০-৪১ সূত্রদ্বয়ে আছে—“ইন্দ্রিয়, মন ও বুদ্ধি এই তিনটিই কামের অধিষ্ঠানভূমি, ইহারাই দেহাভিমानी মানুষদিগের জ্ঞানকে আচ্ছন্ন করিয়া রাখে। হে ভারত, তুমি প্রথমতঃ ইন্দ্রিয়গণকে বশীভূত করিয়া সকল পাপের মূল এবং জ্ঞানবিজ্ঞান-বিনাশকারী কামকে বিনষ্ট কর।” নারদভক্তিসূত্রে (১।৩৫) আছে—“বিষয়-ত্যাগ এবং সঙ্গ (আসক্তি) ত্যাগ হইলে ভগবদ্ভক্তিতে প্রবেশ করা যায়।” সাংখ্যের প্রধান প্রতিপাদ্য বিষয় এই যে পুরুষ স্বভাবতঃ মুক্ত, কিন্তু মায়া বা প্রকৃতির সংসর্গেই তাহার বিকার উপস্থিত হয়; মায়াযুক্ত বা বিকার-রহিত হইতে পারিলেই তাহার পরমপুরুষার্থ লাভ ঘটে। অন্যান্য শাস্ত্রেও এইরূপ বিবৃতি আছে।

পং ৪-৭। চান্দের কাছে অবলা আছে, ইত্যাদি। অমৃতরসাবলীতে “আপনা জানিলে তবে সহজবস্তু জানে” এই কথা বলিয়াই আলোচ্য পদটি সন্নিবিষ্ট হইয়াছে। এই উল্লেখ হইতে বুঝা যায় যে আত্মতত্ত্ব বা নিজের প্রকৃতি সম্বন্ধে জ্ঞানলাভ করাই সহজধর্মের প্রধান উদ্দেশ্য। আলোচ্য পদটি তাহার পরে স্থাপিত হইয়াছে বলিয়া ঐ পদেও যে আত্মতত্ত্বসম্বন্ধীয় কথাই বলা হইয়াছে, ইহা ধারণা করা যাইতে পারে। জ্ঞান বা যোগমার্গ অবলম্বন করিয়াও আত্মতত্ত্ব সম্বন্ধে জ্ঞান লাভ করা যায়, কিন্তু সহজিয়ারা এই সকল পন্থা পরিত্যাগ করিয়া প্রেমের দিক দিয়া অগ্রসর হইয়াছেন, অতএব প্রেমমার্গীয় ব্যাখ্যাই এখানে অবলম্বনীয়। অমৃতরসাবলীতে রূপকভাবে যে উপাখ্যানের বর্ণনা করা হইয়াছে তাহাতে প্রকৃতিকে একটি রমণীরূপে কল্পনা করা হইয়াছে, এবং বলা হইয়াছে যে তিনি থাকেন “গুপ্তচন্দ্রপুরে”, আর তাঁহার বাড়ীর বাহিরে “একটি দ্বার”, এবং “ভিতরে তিনটি।” ইহারই সূত্ররূপে আলোচ্য পদমধ্যে “চান্দের কাছে অবলা আছে ইত্যাদি” বলা হইয়াছে।

এই তত্ত্বই সহজিয়ারা নানাভাবে ব্যাখ্যা করিয়াছেন। আনন্দভৈরব নামে তাঁহাদের এক গ্রন্থ আছে, সহজিয়া সাহিত্যে ইহাকে সহজধর্মের দ্বিতীয় গ্রন্থ বলিয়া প্রচার করা হইয়াছে। শিবশক্তির কথোপকথন-ব্যপদেশে তাহাতে লিখিত হইয়াছে—

এই কথা কহিতে শক্তি অমৃত হইল।

চন্দ্রগুণে-বিহ্বল হর ললাটে পরিল ॥

শক্তি অমৃত হইলেন, আর তাঁহাকে যিনি ধারণ করিলেন তাঁহার বিশেষণ হইল এই যে তিনি “চন্দ্রগুণে-বিহ্বল”। বক্তব্য এই যে অমৃতত্বে পরিণত শক্তিকে ধারণ করিতে হইলে চন্দ্রগুণে বিভূষিত হওয়াই ধারণকারীর প্রধান বিশেষত্ব হইবে।

এখন, চন্দ্রগুণ কি? চন্দ্রের গুণ=চন্দ্রগুণ, অর্থে শীতলতা, সে জন্য চন্দ্রকে শীতাংশু বলে। সূর্য্যের উত্তাপ, এবং চন্দ্রের শীতলতা ধর্ম্যব্যাখ্যায় কাম ও প্রেমের বিশেষত্বের সঙ্গে উপমিত হইয়া থাকে—

সূর্য্যোদয়ে তপোদ্ভব, তারে বলি কাম।

চন্দ্রের কিরণে জ্যোৎস্না ধরে প্রেম নাম ॥

আত্মনিরূপণ-গ্রন্থ।

অন্যত্র—

কাম দাবানল

রতি যে শীতল

সলিল প্রণয় পাত্র। ইত্যাদি।

চণ্ডীদাসের পদাবলী, পদ নং ৭৭৯।

অতএব ষাঁহার মধ্যে কামের অভাব এবং প্রেমের অভিব্যক্তি হইয়াছে, তাঁহাকেই চন্দ্রগুণে বিভূষিত বলা হয়। উপনিষদের ভাষায় তাঁহাকেই বলে “বিরজ, নির্বিকার”, গীতায় “স্থিতপ্রজ্ঞ” (গীতা ২।৫৫-৬১), পুরাণাদিতে “গুণসমতাপ্রাপ্ত,” (বিষ্ণুপুরাণ ১।২।২৫-২৭) এবং সহজিয়া সাহিত্যে “জীয়েন্তে মৃত” ইত্যাদি। ষাঁহার এইরূপ গুণবিশিষ্ট, তাঁহাদের প্রকৃতিই অমৃতত্ব প্রাপ্ত হয় বলিয়া “চান্দ্রের কাছে অবলা আছে” ইহার পরিকল্পনা। সহজিয়ারা নানাভাবে ইহা প্রচার করিয়াছেন—

সে কেমন পুরুষ

পরশ-রতন

সে বা কোন্ গুণে হয় ।

সাতের বাড়ীতে (দেহজ সপ্তধাতুতে) পাষণ পড়িলে

পরশ-পাষণ হয় ॥

চণ্ডীদাসের পদাবলী, পদ নং ৮০৪ ।

অথবা

শুষ্ক কাষ্ঠের

সম আপনার

দেহ করিতে হয় । ঐ, পদ নং ৮০২ ।

অন্যত্র—

সমুদ্রের ঢেউ যদি সমুদ্রে মরিবে ।

তবে কেন তার দেহ অপ্রাকৃত না হবে ॥

বিবর্তবিলাস ।

অর্থাৎ বাহ্য আকর্ষণে ঐহাদের দেহে বিকার উপস্থিত হয় না, তাঁহারা ই অপ্রাকৃত দেহধারী । কামের তাপ তাঁহারা অনুভব করেন না বলিয়া তাঁহাদিগকেই চন্দ্রগুণ-সম্পন্ন বলা হয় । এই জাতীয় লোকের মধ্যেই (সহজিয়া মতে) প্রকৃত প্রেমের অভিব্যক্তি হয়, ইহা নির্দেশ করিবার জন্য বলা হইয়াছে—

প্রেমের স্থিতি চন্দ্রমণ্ডলে ।

আত্মনিরূপণগ্রন্থ ।

অতএব আলোচ্য পদাংশে বলা হইল যে অমৃতত্বে পরিণত প্রকৃতিই জগতের শ্রেষ্ঠ পদার্থ, অতএব একমাত্র সাধ্য বস্তু ।

দ্রষ্টব্য :—চন্দ্রে যে অমৃত আছে, এই তত্ত্ব অগ্গাণ্ড শাস্ত্রেও প্রচারিত হইয়াছে । পুরাণাদিতে পাওয়া যায় যে দেবতাগণ চন্দ্রমণ্ডলে অমৃত পান করিয়া থাকেন (বিষ্ণুপুঃ ২।১২।৪-৭, ইত্যাদি) । সৌমরূপ অমৃত দেবতারা চন্দ্রমণ্ডলে ভক্ষণ করেন, ইহাও উপনিষদে বর্ণিত হইয়াছে (ছান্দোগ্যঃ উপঃ, ৫।১০।৪, এবং তাহার টীকা) । সমুদ্রমন্ত্ৰনোদ্ধৃত অমৃত দেবতারা পান করিলেন, আর বিশ্বের ভাগী হইলেন অম্বরগণ, ধর্ম ব্যাখ্যায় এই উপাখ্যানের সার্থকতা আছে । প্রেমের রাজ্যে অম্বরভাবাপন্ন লোকেরা বিষ, এবং দেবভাবাপন্ন লোকেরা অমৃত পান করেন ।

বিষেতে অমৃতে মিলন একত্রে ইত্যাদি। প্রকৃতিকে অমৃতত্বে পরিণত করিতে হইবে, কিন্তু সাধকের ইহা মনে রাখিতে হইবে যে প্রকৃতি বিষও হইতে পারে, অমৃতও হইতে পারে। এই জন্মই আলোচ্য পদমধ্যে বলা হইয়াছে “বিষে অমৃতে মিলন” ইত্যাদি। আর একটি রাগাত্মিক পদে আছে—

নারীর স্বজন অতি সে কঠিন
কেবা সে জানিবে তায়।
জানিতে অবধি নারিলেক বিধি
বিষমৃত একত্রে রয় ॥ ৮০৫ নং পদ।

সংসারে এই সত্যের উপলব্ধি অনেকেই করিয়াছেন। সাধারণতঃ দেখা যায় এক একটি স্ত্রীলোক সংসারকে সর্বস্বত্বের আকর নন্দনকাননে পরিণত করেন, ইহারাই অমৃতরূপিণী। আর যাহাদের ব্যবহারে অশান্তির অনলে পুড়িয়া সংসার ছারখার হইয়া যায়, তাহারাই বিষ। জগৎ চলিতেছে, কিন্তু বাহিরের দিকে দৃষ্টিপাত করিলে দেখা যায় যে ইহা ধ্বংসলীলার অভিনয়ক্ষেত্র ব্যতীত আর কিছুই নহে, আবার ইহাও সত্য যে এক সঞ্জীবনী শক্তি ইহার অভ্যন্তরে গুপ্তভাবে কার্য্য করিয়া প্রতি অণুপরমাণুতে প্রাণের সঞ্চারণ, পোষণ ও পরিপুষ্টি সাধন করিতেছে। এই জন্মই ভাবুকগণ বলিয়া থাকেন—“পৃথিবীর এক দৃশ্য শ্মশান, অপর দৃশ্য সূতিকাগার।” প্রকৃতির এই দ্বিবিধ বিশেষত্বের সন্ধান “উর্ব্বশী” কবিতায় রবীন্দ্রনাথ এই ভাবে দিয়াছেন—

আদিম বসন্তপ্রাতে উঠেছিলে মস্থিত সাগরে।
ডানহাতে সুধাপাত্র, বিষভাণ্ড লয়ে বাম করে ॥

আবার বিভিন্ন মূর্তিতে ইহাদের সংস্থান কল্পনা করিয়া তিনি লিখিয়াছেন—

কোন্ ক্ষণে
স্বজনের সমুদ্র-মস্থানে
উঠেছিলে দুই নারী
অতলের শয্যাতেল ছাড়ি'।
এক জনা উর্ব্বশী, সুন্দরী,
বিশ্বের কামনা-রাজ্যে রাণী,
স্বর্গের অপরী।

অনুজনা লক্ষ্মী, সে কল্যাণী,
বিশ্বের জননী তাঁরে জানি,
স্বর্গের ঈশ্বরী । ইত্যাদি

এই কবিতায় কবি নিজেই ব্যাখ্যা করিয়া দিয়াছেন যে একরূপে নারী কামনার
রাণী, আর অনুরূপে তিনি জগতের কল্যাণকারিণী সঞ্জীবণী শক্তিরূপিণী লক্ষ্মী ।
সহজিয়া শাস্ত্রে এই তত্ত্বই কাম এবং প্রেম আখ্যায় প্রচারিত হইয়াছে—

বিষামৃত হয় দেখ কাম আর প্রেম ।
নিগূঢ়ার্থপ্রকাশাবলী ।

যেহেতু—

একাধারেই এই উভয়ের অবস্থিতি—
এবং— প্রেম-অমৃত, কাম রহে একটাই । ইত্যাদি ।
বিবর্ত্তবিলাস ।

অতএব রসজ্ঞ লোকেরা কামরূপ বিষ পরিত্যাগ করিয়া অমৃতরূপ প্রেম আশ্বাদন
করিয়া থাকেন—

রসজ্ঞ যে জন সে করয়ে পান
বিষ ছাড়ি অমৃতে ।

৮০৫ নং পদ ।

অথবা ঐ বিষকেও অমৃতে পরিণত করেন—

বিষকে অমৃত ভাই যে করিতে পারে ।
কামাতি বিষ জারি হবে প্রেমামৃতে ॥
বিবর্ত্তবিলাস ।

অর্থাৎ প্রেমরূপ অমৃত দ্বারা কামবিষকে জারিত করিয়া তাহাকে অমৃতময় করিতে
হইবে, কারণ কাম দূরীভূত না হইলে প্রেমের উদ্ভব হইতে পারে না—

কামগন্ধহীন হৈলে প্রেমের সঞ্চার ।
বিবর্ত্তবিলাস ।

এই তত্ত্বই পরবর্ত্তী পদাংশে ব্যাখ্যাত হইয়াছে ।

পং ৮-১১। বাহিরে তাহার একটি দুয়ার ইত্যাদি। যে অমৃতরসাবলীগ্রন্থ হইতে আলোচ্য পদটি উদ্ধৃত হইয়াছে, তাহাতে এই দ্বার সম্বন্ধে এইরূপ বর্ণনা আছে—

দশ দণ্ড বেলা যখন হইল গগনে ।
 মহল দেখিতে যাত্রা কৈল ছয়জনে ॥
 বাহির দুয়ার দেখি করিল প্রশংসা ।
 স্থিতি দেহের হয় এই নিত্যধাম ॥
 এক রঙ্গ দুই রঙ্গ তিন রঙ্গ উঠে ।
 একতলা দুইতলা তিনতলা বটে ॥
 দিগ্বিদিক জ্ঞান নাই কেবা যাইতে পারে ।
 তসলি কপাট আছে একটি দুয়ারে ॥
 তিন দ্বার হয় তার এক দ্বার মুক্ত ।
 দুই দ্বার নাহি ছোয় যেই হয় ভক্ত ॥
 মধ্য দুয়ারে সবে করিল গমনে ।
 আপনার স্থান বুঝি বসিলা ছয়জনে ॥
 হিয়ার ভিতরে বৈসে বাছে তার গুণ ।
 এ চৌদ্দ ভুবন তাহে করে আকর্ষণ ॥
 সেই গুণে মনের যে জন্মায় আনন্দ ।
 সেই ছয়জন্যর ঘটিত আনন্দের আনন্দ ॥
 অমৃতের গুণে আগে করে আকর্ষণ ।
 রসিক ভক্ত বিনে ইহা না জানে অণু জন ॥ ইত্যাদি ।

এই উল্লেখ হইতে দেখা যায় যে বাহিরের দ্বারটি “স্থিতি দেহের নিত্যধাম।” গীতায় (৭।৪-৫) আছে—“ ভূমি, জল, বায়, অনল, আকাশ, এবং মন, বুদ্ধি, ও অহংকার, আমার এই আট প্রকার প্রকৃতি। ইহাদের মধ্যে প্রথম পাঁচটির দ্বারা পঞ্চভূতাত্মক দেহ হয়, অপর তিনটি আভ্যন্তরীণ ইন্দ্রিয়, তন্মধ্যে আবার মন শ্রেষ্ঠ।” অতএব পঞ্চভূতাত্মক দেহজ প্রকৃতিই (যাহা “স্থিতি দেহের নিত্যধাম” বলিয়া বর্ণিত হইয়াছে) বাহিরের দ্বার, আভ্যন্তরীণ তিন ইন্দ্রিয়ের মধ্যে শ্রেষ্ঠতা নিবন্ধন মনই অবলম্বনীয়, ইহাই বলা হইল। মহাভারতের শান্তিপর্ব্বের (২৬৮।২৩) শ্লোকে আছে—“শরীর-মধ্যস্থ আত্মার চারটি দ্বার,

ইত্যাদি।” টীকাকার ব্যাখ্যায় বলিয়াছেন যে শরীর, ইন্দ্রিয়, মন ও বুদ্ধি ইহাদিগকেই চারি দ্বার বলা হইয়াছে। অতএব এইরূপ দ্বারের কল্পনা পূর্ববর্তী শাস্ত্রাদিতেও পাওয়া যায়।

নানাভাবে এই দ্বারতত্ত্ব ব্যাখ্যা করা যাইতে পারে। বিশ্ববিদ্যালয়ের ২৫২০ নং পুথি হইতে ইতিপূর্বের যে পাঠান্তর (৮-৮ নং পাঠান্তর দ্রষ্টব্য) উদ্ধৃত হইয়াছে, তাহাতে বাহিরের দ্বারটিকে কামদ্বার বলা হইয়াছে, যথা—

ভিতরে তাহার তিনটি দুয়ার
বাহিরে যে কাম হয়।

চরিতামৃতকারের ভাষায় আত্মেন্দ্রিয় প্রীতির ইচ্ছাই কাম—

আত্মেন্দ্রিয় প্রীতি ইচ্ছা তারে বলি কাম।

আদির চতুর্থে।

অর্থাৎ নিজের প্রীতি বা সুখ কামনা করিয়া যাহা করা যায়, তাহাই স্বকাম বা স্বকীয়া পর্যায়ে অন্তর্ভূত। রাগময়ীকণাতে আছে—

মত্ত হয়ে স্বকামেতে চন্দ্রাবলী রয়।

হইলে স্বকামী ভাই, এই মত হয় ॥

নিজ হেতু যত কাম চন্দ্রাবলী স্থলে।

তার জন্ম স্বকীয় ভাব সকলেতে বলে ॥ ইত্যাদি।

সহজিয়ারা স্বকীয়া হইতে পরকীয়ার শ্রেষ্ঠত্ব স্বীকার করেন। দার্শনিক মতে ইহার অর্থ এই যে সকাম হইতে নিকাম সাধনা শ্রেষ্ঠ। (মৎপ্রণীত “চৈতন্য পরবর্তী সহজিয়া ধর্ম” নামক গ্রন্থের ৭৯-৯৬ পৃষ্ঠায় ইহা বিস্তৃত ভাবে আলোচিত হইয়াছে।) এই নিকাম সাধনাকেই সহজিয়ারা পরকীয়া আখ্যা দিয়াছেন—

পরকীয়া রতি হয় নিকাম কৈতব।

ভৃঙ্গরত্নাবলী।

অতএব বাহিরের দ্বারটি পরিত্যাগ করা অর্থে সকাম সাধনা অবলম্বন না করা। এখন ভিতরের তিনটি দ্বার কি? সকাম সাধনা পরিত্যাগ করিয়া পরকীয়া বা নিকাম সাধনা অবলম্বন করিতে হইবে। সহজিয়া মতে এই পরকীয়া ত্রিবিধ,—(১) কর্ম্ম পরকীয়া, (২) জ্ঞানী পরকীয়া, (৩) শুদ্ধ পরকীয়া।

তন্মধ্যে—

কৰ্ম্মী, জ্ঞানী মিছাভক্ত

না হবে তার অনুরক্ত

শুদ্ধ ভজনেতে কর মন ।

বিপুঃ ১১৬৩ ।

অর্থাৎ কৰ্ম্মী ও জ্ঞানী পরকীয়া পরিত্যাগ করিয়া শুদ্ধ পরকীয়া আশ্রয় করিতে হইবে। ইহাই “চতুর হইয়া দুইকে ছাড়িয়া, একের কাছেতে রয়” এই পদাংশে বলা হইয়াছে।

কৰ্ম্মীদের বিশেষত্ব সহজিয়া গ্রন্থাদিতে এই ভাবে ব্যাখ্যাত হইয়াছে—

ভক্তিপরায়ণ হৈয়া নানা কৰ্ম্ম করে ।

কৰ্ম্মবন্ধে সদা ফিরে কৰ্ম্মী বলি তারে ॥

বৃহৎপ্রেমভক্তিচন্দ্রিকা ।

যাহারা ভক্তিপরায়ণ হইয়াও কৰ্ম্মকাণ্ড অনুসরণ করে তাহাদিগকে কৰ্ম্মী বলে। এই পন্থা সহজিয়াদের অনুমোদিত নহে। আর—

জ্ঞানী পরকীয়া ধৰ্ম্ম কহে মায়াশ্রিতে ।

ইহার প্রমাণ দেখ শ্রীমৎভাগবতে ॥

ঐ

ভাগবতের ১০।৩৫।৩৭ শ্লোকে আছে যে নারায়ণ যখন গোপীদিগকে লইয়া বৃন্দারণ্যে বাস করিয়াছিলেন, তখন তিনি নিজ ঐশ্বরিক শক্তি-প্রভাবে গোপীদের অনুরূপ মূর্তি সৃষ্টি করিয়া তাঁহাদের বাড়ীতে রাখিয়া দিয়াছিলেন। ভগবানের এই যে ঐশ্বর্যলীলার ধারণা, ইহাই জ্ঞানী পরকীয়ার ভিত্তি। এই জন্মই বলা হইয়াছে—

ভগবানের পরকীয়া ভরত-মুখে শুনি ।

শুদ্ধ পরকীয়া নহে, পরকীয়া জ্ঞানী ॥

জ্ঞান মার্গে পরকীয়া ভগবান্ কৈল ।

ঐ

ইহাতে ঈশ্বরত্বের ধারণা থাকে বলিয়া সহজিয়া মতে ইহা স্বকীয়া পর্য্যায়ভুক্ত—

ঈশ্বরত্ব ভজন করয়ে যেই জন ।

স্বকীয়া করয়ে তারা জানিবে কারণ ॥

বিপুঃ ৫৯১, ১০ পৃঃ

এবং ইহা বৈধী সাধনার অন্তর্গত—

কেবল বিধি মার্গে এই জ্ঞানী পরকীয়া ।

বৃহৎপ্রেমভক্তিচন্দ্রিকা, ৮ পৃঃ ।

অতএব রাগানুগমতাবলম্বী পূর্ণ মাধুর্য্যের উপাসক সহজিয়ারা উক্ত উভয় পন্থাই পরিত্যাগ করিয়া শুদ্ধ পরকীয়া অবলম্বন করিবার পক্ষপাতী । শুদ্ধ পরকীয়া সম্বন্ধে তাহাদের অভিমত এই—

বিশুদ্ধ সত্ত্বের কহি শুদ্ধ পরকীয়া ।

বিপুঃ ২৫৩৩, ৫ পৃঃ ।

ইহার বিশেষত্ব এই যে—

অখণ্ড নিকাম তার স্বাভাবিক রতি ।

সেই স্বাভাবিক রতি চৈতন্য গোসাঞি ॥

ভৃঙ্গরত্নাবলী, ১১ পৃঃ ।

অর্থাৎ চৈতন্যদেব ষে রূপ কৃষ্ণপ্রেমে বিভোর হইয়াছিলেন, সেইরূপ ভাব অবলম্বন করার নাম শুদ্ধ পরকীয়া । ইহাই সহজিয়াদের সর্বশ্রেষ্ঠ অবলম্বনীয় পন্থা, এই বিধিই এই পদাংশে দেওয়া হইল ।

দ্বিতীয়তঃ । বাহিরের দ্বারটি বৈধী সাধনা, আর ভিতরের দ্বারত্রয় রাগানুগ মতের ত্রিবিধ অভিব্যক্তি । শাস্ত্রের বিধানানুযায়ী ক্রিয়াকাণ্ড-সমন্বিত সাধনাকে বৈধী বলে—

রাগহীন জন ভজে শাস্ত্রের আন্তায় ।

বৈধী ভক্তি বলি তারে সর্বশাস্ত্রে গায় ॥

চরিতামৃত, মধ্যের দ্বাবিংশে ।

রাগহীন বলিয়া ব্রজভাবে ভজনায় ইহার স্থান নাই—

বিধি ভঞ্জে ব্রজতাব পাইতে নাহি শক্তি ।

ঐ, আদির তৃতীয়ে ।

অতএব ইহাকে পরিত্যাগ করিবার ব্যবস্থা দেওয়া হইয়াছে—

ছাড় অগ্ন জ্ঞান কৰ্ম্ম বিধি আচরণ ।

নাহি দেখ বেদ-ধর্ম্ম স্বকীয়া সাধন ॥

রত্নসার, ৩৮ পৃঃ ।

অন্যত্র—

বিধিপথ পরিত্যজ রাগানুগ হয়ে ভজ
রাগ নৈলে মিলে না সে ধন ।

প্রেমানন্দলহরী, ৬ পৃঃ ।

বাহিরের এই সকল আচার-নিষ্ঠা পরিত্যাগ করিয়া হৃদয়ের প্রেমভক্তিজাত রাগানুগ ভজন অবলম্বন করিতে হইবে । এই রাগানুগ ত্রিবিধ—(১) কায়িক, (২) বাচিক, এবং (৩) মানসিক ।

সেই রাগানুগ হয় ত্রিবিধ প্রকার ।
কায়িকী, বাচিকী দুই, মানসিক আর ॥

রাগানুগ-বিবৃতি, ১ পৃঃ ।

তন্মধ্যে—

মনেতে করহ রতি শ্রীরূপ পরাণ-পতি
শ্রীকৃষ্ণ ভজন কর সার ।

অমৃতরত্নাবলী, ৮ পৃঃ ।

অন্যত্র—

রাগমই আত্মাতে বিহার করেন । বিপুঃ ৫৬১ ।

এবং—

নিজমুখ নাই মাত্র আত্মাতে রমণ ।
রমিলে করিতে হয় এ সব জাজন ॥

রত্নসার, ৮৮ পৃঃ ।

অতএব কায়িক ও বাচিক ভজন পরিত্যাগ করিয়া মানসিক ভজন অবলম্বন করিতে হইবে, ইহাই এই পদাংশে বিবৃত হইল ।

তৃতীয়তঃ । এই দ্বারতন্ত্ৰের একটা দার্শনিক ব্যাখ্যাও দেওয়া যাইতে পারে ।

চরিতাম্বতে আছে—

কৃষ্ণের অনন্ত শক্তি, তা'তে তিন প্রধান ।
চিচ্ছক্তি, মায়াশক্তি, জীবশক্তি আর ॥

অন্তরঙ্গা, বহিরঙ্গা, তটস্থা কহি যারে ।

অন্তরঙ্গা স্বরূপশক্তি সভার উপরে ॥

মধ্যের অষ্টমে ।

অতএব দেখা যাইতেছে যে মায়াশক্তি বহিরঙ্গা, আর স্বরূপশক্তি অন্তরঙ্গা ।
এই অন্তরঙ্গা শক্তি আবার ত্রিবিধ—

সৎ চিৎ আনন্দ হয় কৃষ্ণের স্বরূপ ।

অতএব স্বরূপশক্তি হয় তিন রূপ ॥

আনন্দাংশে হলাদিনী, সদংশে সন্ধিনী ।

চিদংশে সন্ধিৎ যারে জ্ঞান করি মানি ॥ ঐ

তন্মধ্যে—

হলাদিনীর সার অংশ, তার প্রেম নাম ।

আনন্দচিন্ময় রস প্রেমের আখ্যান ॥ ঐ

অতএব দেখা যাইতেছে যে বাহিরের দ্বারটি বহিরঙ্গা মায়াশক্তি ; আর অন্তরঙ্গা শক্তির সৎ, চিৎ, আনন্দরূপ ত্রিবিধ অভিব্যক্তির মধ্যে প্রেম আনন্দ-চিন্ময় রস বলিয়া রাগানুগ সাধনায় তাহাই অবলম্বনীয়, ইহাই এই পদাংশে বিবৃত হইল ।

চতুর্থতঃ । এই পদের ৪-১১ পংক্তির তান্ত্রিক মতের ব্যাখ্যাও দেওয়া যাইতে পারে । শিবসংহিতার পঞ্চম পটলের ১০১ শ্লোকে বলা হইয়াছে—“নিজ দেহস্থ শিব ত্যাগ পূর্বক যে ব্যক্তি বহিস্থ দেবকে পূজা করে, সেই ব্যক্তি হস্তস্থ ভক্ষ্য ত্যাগ করিয়া প্রাণধারণের জন্ম দ্বারে দ্বারে ভ্রমণ করিয়া থাকে ।” অতএব বহিস্থ দেবকে পূজা করা (তাহার আনুসঙ্গিক ধ্যান পূজাদি সহ) বহিরঙ্গ সাধনার অন্তর্গত । ইহাই রূপকভাবে বাহিরের দ্বার বলিয়া কথিত হইয়াছে । তান্ত্রিকেরা এই বহিরঙ্গ সাধনা পরিত্যাগ করিয়া দেহস্থ শিবকে অর্চনা করিয়া থাকেন, ইহাই অন্তরঙ্গ সাধনার বিষয়ীভূত । এই সাধনায় “বুদ্ধিমান যোগী ইন্দ্রিয়গ্রামকে বিষয় হইতে সংযত করিয়া অধিষ্ঠিত থাকিবে” (ঐ, ১২৮ শ্লোক), ইহাও বাহিরের দ্বার রুদ্ধ করিতে বলার অর্থ হইতে পারে । মন্তকে যে সহস্রদল-কমল রহিয়াছে, তাহার নীচে এক চন্দ্রমণ্ডল বিরাজমান আছে (ঐ, ১৩৮ শ্লোক), তাহা হইতে সর্বদা অমৃত ক্ষরিত হইতেছে (ঐ, ১৩৯ শ্লোক), ইহাই “চান্দের কাছে অবলা আছে” বলিবার তাৎপর্য্য । মন্তকস্থ কপালরন্ধ্রে ঘোড়শকলাযুক্ত

সুখারশ্মিসম্বন্ধিত হংসনামক নিরঞ্জনকে ধ্যান করিতে হয় (ঐ, ১৯১ শ্লোঃ), এবং সহস্রার কমল হইতে যে সুখাধারা বিনির্গত হয়, সাধক সর্বদা তাহা পান করিয়া মৃত্যুকে জয় করেন (ঐ, ২০৪), এঁজন্তই চান্দ্রের কাছে যে অবলা আছে, তাহাকেই পৃথিবীর সার বলা হইয়াছে। দেহমধ্যস্থ প্রধান নাড়ী তিনটি—ইড়া, পিঙ্গলা, ও সুষুম্না, ইহারাই ভিতরের তিন দ্বার বলিয়া কথিত হইয়াছে। তন্মধ্যে ইড়া অমৃতবাহী (ঐ, ১৪০ শ্লোঃ), আর মূলাধারে যে রবি অবস্থিত আছে, তাহা হইতে জলময় বিষ সর্বদা ক্ষরিত হইয়া পিঙ্গলা নাড়ীতে সঞ্চারিত হইতেছে (ঐ, ১৪৫-১৪৬ শ্লোঃ), এবং এই উভয় নাড়ীই আত্মাপন্থে মিলিত হইয়াছে, এ জন্তই বলা হইয়াছে যে “বিষতে অমৃতে একত্র মিলন” ইত্যাদি। তন্ত্রের উপদেশ এই যে সুষুম্নার শক্তিকে প্রবুদ্ধ করিয়া অভীষ্ট লাভ করিতে হয়, এ জন্তই বলা হইয়াছে যে “চতুর হইয়া দুইকে (অর্থাৎ ইড়া ও পিঙ্গলাকে) ছাড়িয়া একের (অর্থাৎ সুষুম্নার) কাছেতে থাক” ইত্যাদি। কিন্তু তান্ত্রিকমতের এই ব্যাখ্যা শক্তি-সাধন ব্যাপার যতটা নির্দেশ করে, পীরিতি-সাধন প্রক্রিয়া ততটা করে না।

পং ১২-১৫। আম সুষ্মাহু ফল বটে, কিন্তু তাহার বহির্দেশ কটুচাল-দ্বারা আচ্ছাদিত। যে আম খাইতে জানে, সে বাহিরের ছাল পরিত্যাগ করিয়া ভিতরের অমৃতোপম রস আশ্বাদন করে। প্রকৃত প্রেমিকেরাও সেইরূপ বাহিবের সৌন্দর্য্যে অভিভূত না হইয়া, সারভূত রস আশ্বাদন করিতেই যত্নবান হয়। বাহিরের দ্বার পরিত্যাগ করিয়া ভিতরের দ্বারে প্রবেশ করিবার যে নির্দেশ পূর্ববর্তী পদাংশে দেওয়া হইয়াছে, তাহারই দৃষ্টান্তস্বরূপ এই উপমা প্রদত্ত হইল।

দ্রষ্টব্য :—পরিষদের পদাবলীতে ইহার পরে যে চারি পঙ্ক্তি সন্নিবিষ্ট হইয়াছে (এই পদের ১২নং পাঠান্তর দ্রষ্টব্য), তাহার ভাব চরিতামৃত হইতে গ্রহণ করা হইয়াছে বলিয়া বোধ হয়। উক্ত গ্রন্থে মধ্যের অষ্টমে আছে—

অরসজ্ঞ কাক চুষে জ্ঞান-নিম্ব ফলে।

রসজ্ঞ কোকিল খায় প্রেমাত্মমুকুলে ॥

অভাগিয়া জ্ঞানী আশ্বাদয়ে শুদ্ধ জ্ঞান।

কৃষ্ণপ্রেমামৃত পান করে ভাগ্যবান ॥

পরবর্তী চারি পঙ্ক্তিও চরিতামৃতের ভাব লইয়া রচিত হইয়াছে, যথা—

বৃন্দাবনে অপ্রাকৃত নবীন মদন।

কামগায়ত্রী কামবীজে ঝাঁর উপাসন ॥ মধ্যের অষ্টমে।

পরবর্তী কালে এই যোজনা হইয়াছে বলিয়াই বোধ হয় এই আট পঙ্ক্তি ৩৪ ৩৬, এবং ২৫২০ নং পুঁথিদ্বয়ে নাই।

পং ১৬-১৯। সহজ কি, তাহা নির্দেশ করাই আলোচ্য পদটির উদ্দেশ্য। অতএব পূর্ববর্তী আলোচনার পরে কবি নিজেই বলিতেছেন যে তাঁহার সহজ ধর্ম্য সম্বন্ধে জ্ঞান লাভ করিতে ইচ্ছা হয় বটে, কিন্তু তিনি দেখিতেছেন যে ইহা বড়ই জটিলতাপূর্ণ। নিজেকে জানিয়া অর্থাৎ নিজের স্বরূপ উপলব্ধি করিয়া যদি সৃজনের সঙ্গে পীরিত করা যায়, তাহা হইলে ইহার গূঢ়মর্ম্ম জানা বাইতে পারে। কিন্তু তাহাতেও সফলকাম হইবার সম্ভাবনা নাই, কারণ যাঁহার নিজেকে জানেন, এবং মনের অন্ধকারও দূরীভূত করিয়াছেন, তাঁহার যদি সহজ সাধনায় প্রবৃত্ত হন, তাহা হইলে তাঁহাদের মধ্যেও এক লক্ষে একজন সিদ্ধি লাভ করিতে পারেন মাত্র। এইরূপ সাধকগণও শ্রীরূপের কৃপা না হইলে সহজবস্তু লাভ করিতে সমর্থ হন না।

এখানে “শ্রীরূপ” শব্দটির ব্যাখ্যার প্রয়োজনীয়তা আছে। ইহা দ্বারা শ্রীরূপ-মঞ্জরীকে নির্দেশ করা হইতেছে। ইনি কে তাহাই আলোচ্য বিষয়। সহজিয়ারা প্রেমমার্গীয় উপাসক, ইহার মূলতত্ত্ব এই যে রূপ, প্রেম, ও আনন্দ পরস্পর নিত্য সম্বন্ধে আবদ্ধ। সহজিয়ারা বলেন—“রসেতে রূপের জন্ম প্রেমের আশ্রয়” (অমৃতরত্নাবলী), অর্থাৎ প্রেমের গৃহে রসেতে রূপের জন্ম, অথবা প্রেমের আশ্রয়ে রসের অনুভূতি হইতেই রূপের উদ্ভব হয়। কোন একটি বস্তু সুন্দর, ইহা যখনই আমরা অনুভব করি, তখনই বুঝিতে হইবে যে সেই বস্তুটির প্রতি আমরা আকৃষ্ট হইয়াছি, এবং তাহাতে রসানন্দও উপভোগ করিয়াছি। এইরূপ আনুকূল্য দৃষ্টি না হইলে রূপের উপলব্ধি হয় না। বস্তুতঃ প্রেমই রূপের সৃষ্টি করিয়া থাকে। অতঃ সুন্দর না বলিলেও মাতা তাহার পুত্রটিকে শ্রীমান্ বলিয়াই জানেন, কারণ তিনি স্নেহের সহিত আনন্দপূর্ণ হৃদয়ে তাহাকে নিরীক্ষণ করেন। সেই দৃষ্টি যাহার নাই, তাহার নিকটেই উক্ত বালক রূপহীন বলিয়া বিবেচিত হয়। অতএব প্রেমের সাধনায় রূপের অনুভূতিই সফলতার নির্দেশ করিয়া থাকে। যে সমগ্র জগতে রূপের সত্তা অনুভব করিতে পারে, সেই প্রেমিক এবং প্রকৃত রসিক। এই জন্যই সহজিয়ারা রূপধর্ম্মী হইয়া পড়িয়াছেন, এবং অশরীরী এই রূপের মূর্ত্তি পরিকল্পনা করিয়া শ্রীরূপ-মঞ্জরীর সৃষ্টি করিয়াছেন। তিনিই সহজিয়াদের “অনুমতি দেবী,” অর্থাৎ তাঁহার কৃপা না হইলে কেহই সহজধর্ম্মে প্রবেশ করিতে পারে না। ইহা বুঝাইবার জন্যই আলোচ্য পদাংশে শ্রীরূপের উল্লেখ করা হইয়াছে।

অন্যত্র—

শ্রীরূপ-করুণা

যাহারে হইয়াছে

সেই সে সহজ-বান্ধা ।

চণ্ডীদাসের পদাবলী, পদ নং ৭৮২ ।

এবং—

শ্রীরূপ আশ্রয়ধর্ম্য যেই জন লয় ।

তবে সেই রাগধর্ম্য তাহাতে উদয় ॥

শ্রীরূপের রূপ হয় নির্মল তার রতি ।

রাগধর্ম্য না হইলে ব্রজে নাহি গতি ॥

সেই ব্রজ-অধিকারী শ্রীরূপ-মঞ্জরী ।

নিত্য রসরূপ তিঁহো রাগ অধিকারী ॥

তাহা বিনে রাগ বস্তু ব্রজে নাহি আর ।

ব্রজ-অধিকারী তিঁহো রাগধর্ম্য-সার ॥ ইত্যাদি ।

অমৃতরত্নাবলী ।

সিদ্ধ দেহে গুরু শ্রীরূপ-মঞ্জরী ।

যাঁহার কৃপাতে পাই শ্রীরাধিকার চরণ-মাধুরী ॥

সহজতত্ত্বগ্রন্থ ।



GROWTH AND DEVELOPMENT OF PROGRESSIVE SERIES IN INDIA

BY

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I. The Hindu interest in series, which represents one of the most noteworthy treatment of their mathematics, in all the stages of its growth and development, may be said to have had a feeble beginning quite early in the Vedic age. We have for instance in the *Taittirīya Saṁhitā**

1, 3, 5, 7,.....19, 29, 39,.....99.

2, 4, 6, 8,.....20.

4, 8, 12,.....

10, 20, 30,.....

In the *Vājasaneyi Saṁhitā*†

4, 8, 12, 16,.....48.

1, 3, 5, 7,.....31.

In the *Pañcaviṁśa Brāhmaṇa*, there is an interesting geometric series.‡

12, 24, 48, 96,.....196608, 393216.

II. Since its earliest conception, the subject became such a fascinating study for the Hindus that they applied its idea in various spheres of their life. Thus for instance, in the *Bṛhad-devatā*, we find the application of the series, § $2 + 3 + 4 + \dots$ 1000 = 500499, to calculate the suktas of the *Vedas*.

* VII. 2.12-17.

† XVIII. 24, 25.

‡ XVIII. 3. Compare also *Lāṭyāyana Śrauta-sūtra* (VIII. 10.1), *Kātyāyana Śrauta-sūtra* XXII. 9, 1-6.

§ *Bṛhaddevatā*, edited in original Sanskrit with English translation by Macdonell, Harvard, 1904.

Amongst the Buddhists we find in the *Dīgha Nikāya*, the series 10, 20, 40,.....80000, used in connection with the calculation of the increment in the life of men.*

The Jaina Bhadrabāhu in connection with an exaggerating story on the origin of their canonical works used the series† $1 + 2 + 4 + \dots$ 8192, *i.e.*, up to 14 terms and correctly gave the result as 16383.

According to the Cosmography of the Jainas, there are innumerable concentric rings of all the continents and the oceans. The first is Jambudvīpa with a diameter of one lac yojana. Each ring has its breadth equal to double its predecessor. The series of their diameter in lacs of yojana is 1, 5, 13, 29, 61, 125, 253, 509; or in other words breadth can be represented as

$$a, 2a, 2^2a, 2^3a, 2^4a, \dots, 2^{n-1}a.$$

$$\therefore \text{Diameters are } a, (2^2 + 1)a, (2^3 + 2^2 + 1)a, \dots$$

$$\begin{aligned} \therefore \text{Diameter of the } n\text{th ring is } & a(1 + 2^2 + 2^3 + \dots + 2^n) \\ & = a(2^{n+1} - 3) \\ & = a \cdot 2^{n+1} - 3a, \end{aligned}$$

and this has exactly been laid down by Nemichandra in his *Triloka-sāra*.‡ Further the Jainas applied its idea in fasting to take penances which forms a part of their religion. We have, for instance, in the *Antagaḍa-Dasāo* :

$$(1)§ \quad 7 + 14 + 21 + 28 + 35 + 42 + 49 = 196.$$

$$(2)|| \quad 8 + 16 + 24 + 32 + 40 + 48 + 56 + 64 = 288.$$

$$(3)¶ \quad 9 + 18 + 27 + 36 + 45 + 54 + 63 + 72 + 81 = 405.$$

$$(4)** \quad 10 + 20 + 30 + 40 + 50 + 60 + 70 + 80 + 90 + 100 = 550.$$

$$(5)†† \quad 1 + 2 + 3 + 4 + \dots + 100 + 100 = 5050 + 100 = 5150.$$

Series played an important part in Prosody too. In calculating the number of “*Vṛttas*” (metre) Piṅgala (before 200 B.C.) used the geometric series $2^1, 2^2, 2^3, 2^4, \dots$ etc.‡‡ which

* T. W. Rhys Davids : *Dialogues of the Buddha*, III, 1928, pp. 70-72.

† “*The Kalpasūtra of Bhadrabāhu*,” edited by H. Jacobi, Leipzig, 1897.

‡ *Trilokasāra* of Nemichandra, edited by Nathu Ram Premi, Bom., 1919. Rule 309.

§ *Antagaḍa Dasāo*, ed. by Barnett, 1907, p. 102.

|| *Ibid.*

¶ *Ibid.*, p. 102.

** *Ibid.*, p. 102.

†† *Ibid.*, p. 106.

‡‡ *Chandaḥ sūtra* of Piṅgala, Rules 8, 28, 29, 30, 31, 32.

as we shall presently see, was the source of the rules for finding the n th term and the sum of a G.P., as laid down in later arithmetical treatises of the Hindus.

III. It was at this rapidly progressing stage of Hindu Mathematics which began some four centuries before the Christian Era and which period has elsewhere been rightly observed by Dr. Datta* to be the beginning of the renaissance in Hindu Mathematics, that we find series to have been separated from the non-mathematical literatures and incorporated into the science of *Gaṇita*. According to the *Sthānāṅga-sūtra*, a Jaina canonical work of 300 B.C. or still earlier, the topics for discussion in mathematics are ten in number one of which is “*Vyavahāra*.”† In the opinion of the commentator Abhayadeva Sūri (1050 A.D.) this included series (*Vyavahāra-śreṇiḥ Vyavahārādīḥ*). Since then the subject became a great favourite with the later mathematicians, most of whom contributed something original to its development. This raised series to such a developed stage that by the 10th Century of the Christian Era, need was felt for writing a special treatise for this particular branch of mathematics. This work the “*Bṛhaddhārā-Parikarma*” (a great treatise on series), though not in extant now, has been referred to by Nemichandra (978 A.D.) in his *Trilokasāra* where he has also given a summary of certain portions of this work.‡

IV. The Hindu achievement in series was not confined within the four walls of India. It first attracted the attention of the Mussalman students. Al-Biruni, the most remarkable of them—remarkable alike for the depth of his learning and versatility of his genius,—who in his eager thirst for knowledge travelled to the centres of learning in India, wrote no less than six works

* “*Scope and Development of the Hindu Gaṇita*.” Reprint from the Indian Historical Quarterly, Vol. 5, No. 3, September, 1929, p. 511.

† Rule 747. The other nine topics are:—Parikarma (the fundamental operations), Rajju (Geometry), Rāsi (Rule of three), Kalāsavarṇa (Fraction), Yāvat-tāvat (Simple equations), Varga (Quadratic equation), Ghana (Cubic equation), Varga-Varga (Biquadratic equation) and Vikalpa (permutations and combinations).

‡ *Trilokasāra* of Nemichandra, *loc. cit.*, Rule 91, commentary.

on Hindu Mathematics and Astronomy, one of which was on series. The title of the work, "*Fi Samkalita-il-adadjai nisfa*,"^{*} fully justifies our belief that he borrowed the subject from India. He further translated the mathematical methods of *Brahma-Siddhānta*† (*Tarjuma ma fi Brahma Siddhānta min turuq al-hisab*) which contained the rules for the summation of series including special cases of higher order, *e.g.*, summation of the squares and cubes of natural numbers.‡ It must however be noted here that with Al-Biruni did not begin the first influx of the Hindu knowledge in series. In the 8th Century A.D. the works of Āryabhaṭa, Brahmagupta and other distinguished scholars were translated into Arabic and highly appreciated.§ Of these works we have already noted that, that of Brahmagupta contained the treatment of series. His predecessor Āryabhaṭa too, was, as we shall just see, a contributor to the subject of no mean order. Further we have ample and overwhelming evidence to show that in the following two centuries, there were composed several treatises on the subject of Hindu mathematics. In this connection we can recall here what a great savant like Dr. Datta has pointed out that even the titles of the Arabic treatises were adopted from the Hindu source.|| These Arabic treatises on Hindu mathematics are now all lost. We therefore cannot know what knowledge of series these works had taught. But it is possible and probable, rather it cannot be doubted, that these works carried some knowledge of *Hindu series* to the land of the Arabs, for, of the Hindu arithmetical treatises of the same period, the treatment of series is an essential feature.

* and † In 1035 A.D. Al-Biruni compiled a complete list of the works composed by him. This list is published in the introduction (pp. xi-xviii) to the Arabic original of the Chronology; compare also the Arabic original of India, preface, pp. xx-xxi.

‡ T. H. Colebrook: *Algebra with Arithmetic and Mensuration from the Sanskrit of Brahmagupta and Bhāskara*, London, 1817, p. 293, hereafter referred as—*Hindu Algebra*.

§ Dr. Bibhutibhusan Datta: "*The Hindu Contribution to Mathematics*." Reprint from "*The Bulletin of the Mathematical Association, University of Allahabad*." Vols. I and II (1927-29), p. 59.

|| Dr. Bibhutibhusan Datta: "*The Science of Calculation by the Board*." Reprint from the American Mathematical Monthly, Vol. XXXV, No. 10, December, 1928, pp. 526-29.

As in many other branches of science and mathematics, so in the matter of *series* also, the Arabians are acknowledged on all hands to have played a prominent part in its propagation in the West. In the *Liber Abaci* of Fibonacci (1202 A.D.) of Italy appeared some rules for the summation of series. This work, it has long been known, depended upon some Arabic sources and did so much to make known the Hindu arithmetic in Europe. In China, too, there seems to have reached an Indian influence in this matter which we shall have occasions to discuss next.

V. I have thus far attempted to give a brief, hurried and necessarily imperfect survey of the gradual evolution, development and propagation of Hindu knowledge in series from the Vedic age onward. All these will be substantiated in the following pages. In the meantime let us see what was the nature of their treatment of series. It must however be remarked at this stage that the Hindus were acquainted with the arithmetic and geometric series only. The harmonic series is purely a Greek contribution. But the classification into arithmetic and geometric appeared only late in the 9th Century A.D.* The earliest attempt at classification that can be traced in the Vedas was on other lines—into even (*Yugma*) and odd (*Ayugma*).† In later times, the number of classes considered were fourteen‡ including the above two classes. These fourteen classes of series, as mentioned in the *Bṛhaddhārā* and summarised in the *Triloka-sāra* (978 A.D.) are as follows :—

If u is the last term, then

1. § *Sarva*, i.e., natural series 1, 2, 3, 4, 5 etc. up to u .
2. || *Sama*, i.e., 2, 4, 6, 8, 10.....up to u . This is the Vedic even series.

* Mahāvira · *Gaṇita-sāra-saṃgraha*, date c. 850 A.D.

† *Vājasaneyi-Saṃhitā*, XVIII, 24, 25.

‡ *Trilokasāra*, loc. cit., Rule 53.

§ *Ibid*, Rule 54.

|| *Ibid*, Rule 55.

3. * *Viṣama*, i.e., 1, 3, 5, 7, 9,.....to $(u-1)$. This is the Vedic odd series.

4. † *Kṛti*, i.e., the square of the natural numbers.

$1^2, 2^2, 3^2, 4^2, \dots, (\sqrt{p})^2$ where p =the square number before u . In the text $p=u$.

5. ‡ *Akṛti*, i.e., non-square series, 2, 3, 5, 6,..... $(u-1)$. This is the natural series minus the square numbers.

6. § *Ghana*, i.e., 1, 2, 3, 4,.....to the last cubic number before u . The cube-root of the last term is the number of series.

7. || *Aghana*, i.e., non-cubic. This is the natural series minus cube numbers, 2, 3, 4, 5, 6, 7, 9, 10,.....

8. ¶ *Kṛtimātrkā*—Mother of square, i.e., a series consisting of the roots of the square series, 1, 2, 3,.....up to \sqrt{u} . Here each term can be squared. Number of terms is \sqrt{u} . This however is a natural series but the difference with the natural series of this classification is that u is the number of terms of the natural series of this classification, and \sqrt{u} is the number of terms of the *Kṛtimātrkā*.

9. ** *Akṛtimātrkā*, i.e., $\sqrt{u}+1, \sqrt{u}+2$, up to u . No term can be squared here. Number of terms is $u=\sqrt{u}$.

10. †† *Ghanamātrkā*, i.e., mother of cubes, 1, 2, 3 up to the last cubeable number (say Gh) before u , i.e., up to the cube-root of the last cubic number before u . The number of terms=cube-root of the last term of the series. This however is a natural series. Its distinction from the natural series of this classification is similar to that of *Kṛtimātrkā* above.

* *Ibid*, Rule 56.

† *Ibid*, Rule 58.

‡ *Ibid*, Rule 59.

§ *Ibid*, Rule 60.

|| *Ibid*, Rule 61.

¶ *Ibid*, Rule 62.

** *Ibid*, Rule 63.

†† *Ibid*, Rule 64.

11. * *Āghanamātrkā*—mother of non-cubes, i.e., $Gh + 1$, $Gh + 2$ u . Number of terms here is $u Gh$.

12. † *Dvirūpa Varga*, i.e., 2^2 , 2^4 , 2^8 , 2^{16} , 2^{32} , etc.

13. ‡ *Dvirūpa Ghana*, i.e., a G.P. series wherein each term is square of its predecessor and first term is 2^3 .

$$2^3, (2^3)^2, (2^3)^4, (2^3)^8, (2^3)^{16}.$$

14. § *Dvirūpa Ghana Ghana*, i.e., a G.P. in which each term is square of its predecessor and the first term is $(2^3)^3 = 512$. $(2^3)^3)^2 = 262144$, etc.

V. The Hindu name for series as used first by the Jainas is *Sedī* (Pr) (*Sk. Średhī*). This was the usual term used in the mathematical literatures of the Hindus from the 5th Century onwards. But in the *Bākshālī MS.* (early centuries of Christian Era) the term used is *Varga* which means groups (*tadā vargaṁ tu kārayet*).|| This term is also used to denote square. Another term was *saṅkalita* which was borrowed by the Arabs at latest in the 11th Century.¶ This word also occurs in the *Bākh Ms.*** Another term “*Rūpoṇā-karaṇa*” is also found in the same work. This term however is not found elsewhere. It literally means “deducting one.” Hoernle†† and Kaye‡‡ supposed that the origin of the name lies in the fact that “The rule in question began with the term *rūpaṇa* which corresponds to the $(t-1)$ of the formula.” Dr. B. Datta,§§ though he admitted the possibility of this interpretation, was, however, of opinion that this was not very convincing. Indeed the rule is not preserved anywhere in the extant copy of the MS. so as to enable us to verify the supposi-

* *Ibid*, Rule 65.

† *Ibid*, Rule 66.

‡ *Ibid*, Rule 77.

§ *Ibid*, Rule 83.

|| Folio, 23 Recto.

¶ See *ante*.

** Folio, 4 verso.

†† *Ind. Antig.*, XVII, p. 47.

‡‡ *Bākh. MS.* 73. Kaye's Edition.

§§ Dr. Datta : “*The Bākh Mathematics.*” Reprint from the Bull. Cal. Math. Soc., pp. 21-23, Vol. XXI, No. 1, March, 1929.

tion. Datta amended the word '*Rūpona*' which he suggested to be an archaic form of "*Rūpoṇa*" to "*Rūpaṇa*." He then gave the following interpretation:—"Then it will mean 'making *rūpa*' which means 'known quantity having specific numbers' i.e., 'known or absolute numbers.' So *Rūpaṇakaraṇa* will mean the method of making absolute numbers that is "totalisation" or "summation." This hypothesis will be strongly supported by the expression "*Rūpaṇakaraṇena phalam-rūpa*" or "by the method of making *rūpa* the result is *ru* 21." In the *Bṛhaddhārā Parikarma* the term used was "*dhārā*"* which means ladder. Another peculiar term found in the *Bākshālī Ms.* is *pārtha*.† Dr. Datta has suggested that the word has got connection with the word "*Pārthakya*" which in itself is a derivation of the word *Prthak* (several). The term used for geometrically progressive series is *Guṇa-saṅkalita*, i.e., where the successive terms are obtained by multiplication (*Guṇa*).

The term for sequence is *krama* and is found only in the *Bākshālī Ms.*

The word used for term is "*dhana*," for the initial term is "*Ādi*" (first) or "*Mukha*," "*Badan*," "*Baktra*" all meaning face.

Antya or *Anta* meaning last is usually used to denote the last term. *Caya*, *Pracaya* and *Uttar* meaning increase stands for the common difference. *Gaccha* and *Pada* (foot) denotes the period or number of terms. The middle term of an A.P. series is called *Madhya* (middle). The term for the sum of progression is *Sarvadhana*, *Śreḍhīphala*, *Gaṇita* or *Citi*. The term used for the sum of G.P. in the *Trilokasāra* is "*Guṇa-Gaṇitam*."§ It is interesting to note that the terms *Śreḍhī*, *Ādi*, *Gaccha*, *Uttara*, *Gaṇita*, were completely standardised in the period of the Jaina canons.

* *Trilokasāra*, loc. cit.

† *Ind. Antiq.*, XVII, p. 278.

‡ *Mahāvīra* : *Gaṇita-sāra-saṁgraha*.

§ *Trilokasāra*, Rule 231.

VII. *Arithmetical Progression.*

(a) We have already seen* that there must have been some method of summing up an A.P. series in the time of *Bṛhaddevatā* (500-400 B.C.) and *Antagaḍa Dasāo*.

(b) The rule $s = \left\{ (n-1) \frac{b}{2} + a \right\} n$ for the summation of an

A.P. series is however found for the first time in the *Bākh Ms.*† *Āryabhaṭa* (449 A.D.) gave the above form‡ as well as the other

$$s = \frac{n}{2} (a+b). §$$

Exactly the same rules appear in the works of Brahmagupta,|| *Srīdhara*,¶ *Nemichandra*,** *Mahāvīra*†† and *Bhāskara*.‡‡ *Āryabhaṭa*§§ and others with the exception of *Nemichandra* gave, moreover, the solution of a particular case of the general applicability of this formula. The case is

$$1 + 2 + 3 + 4 + \dots + n = \frac{n}{2} (1+n).$$

The rule $s = \frac{n}{2} (a+b)$ abruptly appears in a Chinese work,||| the *Suan-ching* of Chang Chin-chien in the latter half of the sixth Century A.D. and not in *Wu-ts'ao Suan-king* written about the beginning of the Christian Era or possibly earlier as has been wrongly recorded by Mr. Smith.¶¶ The rule was also carried to

* See ante.

† Datta's *Bākh. Math.*, p. 21.

‡ *Āryabhaṭīyam : Gaṇitapāda*, Verse 19.

§ *Ibid.*

|| *Hindu Algebra*, p. 290.

¶ *Trīṣatikā*, ed. Sudhākara, Benares (1899), Rule 39.

** *Trīloka-sāra*, Rule 164. The form is $\left(a + \frac{n-1}{2} b \right)$ is given.

†† *Gaṇita-sāra-saṃgraha*, ed. Rangācharya, Madras, 1915, II, 61, 62.

‡‡ *Hindu Algebra*, p. 53.

§§ *Āryabhaṭīyam*, *Gaṇitapāda*, Verses 21, 22.

||| *Mikāmi : Development of Mathematics in China and Japan*, p. 41.

¶¶ *Smith*, II, 499.

Arabia through the translation of Brahmagupta's and Āryabhaṭa's works when Fibonacci took it to Europe.*

(c) The above rule of Āryabhaṭa was followed by another for finding the number of terms which it is evident was derived from the above rule by the solution of a quadratic equation. The rule† is :—

$$n = \frac{1}{2} \left(\frac{\sqrt{8bs + (2a - b)^2 - 2a}}{b} + 1 \right).$$

It was given also by Brahmagupta,‡ Mahāvīra§ and Bhāskara.||

From the general formula, Mahāvīra derived others for finding the first term and the common difference. His results are—

$$\text{1st term} = \frac{s - \frac{n(n-1)}{2}b}{n} = \frac{s}{n} - \frac{n-1}{2}b = \frac{2s - (n-1)b}{2} \quad \text{**}$$

$$\text{Common difference} = \frac{\frac{s-na}{\frac{n^2-n}{2}} - a}{\frac{n-1}{2}} = \frac{\frac{2s}{n} - 2a}{n-2} \quad \text{|||}$$

(d) Mahāvīra, over and above these, gave the solution of some particular cases which are comparatively difficult and important from the historical standpoint of view. These are—

(1) Rule¶¶ for finding out, from the known sum, first term and common difference of another, where the optionally chosen sum

* *Ibid*, p. 500, Fn. 2.

† *Āryabhaṭīyam* : *Gaṇitapāda*, Rule 20.

‡ *Hindu Algebra*, p. 291.

§ *Gaṇita-sāra-saṃgraha*, II, 69.

|| *Līlāvatī*, Rule 12. Ed. H. C. Banerji.

¶ Mahāvīra : *Gaṇita-sāra-saṃgraha*, Chap. II, Rule 73.

** *Ibid*, 74.

†† *Ibid*, 76.

‡‡ *Ibid*, 73.

§§ *Ibid*, 74.

||| *Ibid*, 75.

¶¶ *Ibid*, Rule 84.

is 2, 3, 4 etc., times. The solution given is :

$$a_1 = \frac{s_1}{s} a, \quad b_1 = \frac{s_1}{s} b,$$

where s_1 , a_1 and b_1 are the sum, the final term and the common difference, in order of the series whose sum is chosen. Given the sums of two series, the ratio between the two first terms and that between the two common differences need not always be $\frac{s_1}{s_2}$.

The solution is hence applicable only to particular cases.

(2) Rule* for finding out, in relation to two series, the number of terms wherein are optionally chosen their mutually interchanged first term and common difference, as also their sums which may be equal or one of which may be 2, 3, $\frac{1}{2}$, etc.

Algebraically $a = n(n-1) \times P - 2n$

and $b = (n_1)^2 - n - 2pn$

where a , b and n are the first term, the common difference and the number of terms in the first series, n , the number of terms in the second series and P , the ratio between the two sums, a and b being thus found out, the first term and the common difference of the second series are b and a respectively.

(3) Rule† to find out the first terms in relation to such A.P. as are characterised by varying common difference, equal number of terms and equal sums. The solution given is of a particular case of the rule:—

$a_1 = \frac{n-1}{2} (b_1 - b) + a$ where a and a_1 are the first terms of the two series, b and b_1 their corresponding common differences. It is obvious that in the formula, when b , b_1 and n are given, a_1 is determined by choosing any value for a ; and 1 is chosen as the value of a in the rule here.

(4) Rule‡ to find common difference in relation to such an A.P. as are characterised by varying first terms, equal number of

* *Ibid*, Rule 86.

† *Ibid*, Rule 89.

‡ *Ganita-sāra-saṃgraha*, Ch. II, Rule 91.

terms and equal sums. The solution given is of a particular case of the general formula.

$$b_1 = \frac{a-a_1}{\frac{n-1}{2}} + b \quad \text{wherein also the value of } b \text{ is taken to be 1 in}$$

the rule given.

(5) Rule* for arriving in relation to a series made up of any optional number of terms at a , b and s which is equal to the square and cube respectively. The rule is

$$s = n^2 \text{ when } a = 1 \text{ and } b = \frac{(n-a)^2}{n-1}$$

$$s = n^3 \text{ when } a = n \text{ and } b = \frac{(n-a)}{n-1} \cdot 2n.$$

(6) Rule† to find out a , b and n in relation to a series where sum is the cube of the chosen quantity. We have

$$\frac{x}{4} + \frac{3x}{4} + \frac{5x}{4} \dots \dots \dots 2x \text{ terms.}$$

$$= \frac{x}{4} (2x)^2 = x^3.$$

Therefore $\frac{1}{4}$ of chosen quantity = a

$$a \times 2 = b$$

$$b \times 4 = n.$$

(e) The Hindus were not silent in the matter of the summation of the sums of an A.P. where the sums themselves are in A.P. Their interest in this direction began from the time of Āryabhaṭa (499 A.D.). He has laid down‡

$$\begin{aligned} s_1 + s_2 + s_3 \dots \dots \text{to } n \text{ terms} &= \frac{n(n+1)(n+2)}{6} \\ &= \frac{(n+1)^3 - (n+1)}{6}. \end{aligned}$$

* *Ibid*, Ch. III, Rule 25.

† *Ibid*, Rule 27.

‡ *Gaṇitapāda*, Verse 21.

This rule occurs in the works of the subsequent mathematicians also. Mahāvīra however generalised it. His formula* is—

$S_a + S_a + b + S_a + 2b + \dots$ to n terms.

$$= \frac{n}{2} \left[\left\{ \frac{(2n-1)b^2}{6} + \frac{b}{2} + ab \right\} (n+1) + a(a+1) \right]$$

where $Sx = a + (a+b) + (a+2b) + \dots$ to x terms.

In this connection Mahāvīra gave two other rules :—the first one is for finding the sum of the four quantities, (1) sum of natural numbers up to n , (2) sum of the sums of the various series of natural numbers respectively limited by the various natural numbers up to n , (3) the square of n , (4) the cube of n . The formula he has given is : †

$$\frac{\frac{n \times (n+1) \times 7}{2} - n}{3} \times (n+1)$$

The other rule is to find the collective sum of the sums of the above four quantities. The rule ‡ is $\left\{ (n+3) \frac{n}{4} + 1 \right\} n^2 + n$.

(f) The highest achievement of the Hindus in the matter of A.P. series was the summation of higher series. The series of squares and cubes were however cases which attracted their attention. Āryabhaṭa explicitly stated that §

$$1^2 + 2^2 + 3^2 + \dots + n^2 = \frac{n(n+1)(2n+1)}{6}$$

$$1^3 + 2^3 + 3^3 + \dots + n^3 = (1+2+3+\dots+n)^2.$$

These two rules appear also in the works of Brahmagupta, || Mahāvīra ¶ and Bhāskara. ** In other countries the Greek Archimedes used geometry to show that † †

$$3[a^2 + (2a)^2 + (3a)^2 + \dots + (na)^2] = (n+1)(na)^2 + a(a+2a+3a+\dots+na) \text{ wherein putting}$$

* *Gaṇita-sāra-saṃgraha*, VI, 305½.

† *Gaṇita-sāra-saṃgraha*, VI, 307½.

‡ *Ibid*, 309½.

§ *Gaṇitapāda*, Verse 22.

|| *Hindu Algebra*, p. 291.

¶ *Gaṇita-sāra-saṃgraha*, VI, 296, 301.

** *Hindu Algebra*, p. 53.

†† *Smith*, II, p. 504.

$a=1$, we can arrive at the first formula of Āryabhaṭa. In the Code Arærianus (6th Century) the first rule of Āryabhaṭa exactly re-appears.* The sum of the cubes appears in this work in the form†

$$1^3 + 2^3 + 3^3 + \dots + 10^3 = (\frac{1}{2} \cdot 10 \cdot 11)^2.$$

Still later similar rules are found amongst the Arabs as in the works of Al-Karkhi.‡ They apparently borrowed them from the Hindus through the translations of the works of Āryabhaṭa, Brahmagupta and other distinguished scholars. It was then taken to Italy by Fibonacci.§ The general formula

$$1^3 + 2^3 + 3^3 + \dots + n^3 = \frac{1}{4}n(n+1)^2$$

appeared in Europe only in the 15th Century. Smith however remarks that it was already known to them.||

The two results of Āryabhaṭa were generalised by Mahāvīra. He has dictated the rules as follows :—¶

$$a^2 + (a+b)^2 + (a+2b)^2 + \dots \text{to } n \text{ terms.}$$

$$= n \left[\left\{ \frac{(2n-1)b^2}{6} + ab \right\} (n-a) + a^2 \right]$$

and

$$a^3 + (a+b)^3 + (a+2b)^3 + \dots \text{to } n \text{ terms}$$

$$= s^2b + sa(a-b); \text{ if } a > b$$

$$= s^2b - sa(a-b); \text{ if } a < b,$$

where

$$s = a + (a+b) + (a+2b) + \dots \text{to } n \text{ terms.}$$

VIII. Geometrical Progression.

We have already seen that there was some method of summation of a G.P. series, known to the Hindus in the 4th Century B.C. The earliest trace of the application of a definite rule is however found in the *Chandaḥ-sūtra* (Rules of metre) of Piṅgala

* *Ibid.*, 504.

† *Ibid.*

‡ *Ibid.*

§ Smith, II, p. 505.

|| *Ibid.*

¶ Mahāvīra : *Gaṇita-sāra-saṁgraha*, VI, 298 and 303.

(before 200 B.C.) where the series 1, 2^1 , 2^2 , 2^3 , etc., is treated.* The rule for the summation given, is however dependent upon the finding out of the n th term. Piṅgala has dictated two specific methods for this. The first method, known to the Hindus as the method of “*Prastāra*,” consists substantially of arranging the co-efficients in a triangular form now commonly known as the “*Pascal*” triangle. The form is†

		1								1
		1		1						2
		1		2		1				7
		1		3		3		1		8
		1		4		6		4		16
		1		5		10		10		32
		1		6		15		15		64

It is interesting to note that the triangle had been known to the Arabians since the end of the 11th Century† and to the Chinese from the 14th Century.§ It may however be conjectured that the Arabians borrowed it from the Hindus and the Chinese might have taken it from either source.

The other rule|| is given in the following words: " (In the case of even numbers) halve it and place 2 by its side; (in the case of odd numbers) subtract unity and place 0 by its side. Multiply by two in place of zero and multiply by itself where it is halved."

* *Chandaḥ-sūtra* of Piṅgala, Rules 8, 28, 29, 30, 31, 32.

† *Ibid*, Rules 8, 34. Specially see the ed. of Bhagabati Smrititirtha and Manindranath Smrititirtha, Calcutta, p. 162.

‡ Mikami, p. 106.

§ *Ibid.*, p. 90.

|| *Piṅgala*, 8, 28-31.

Piṅgala then laid down the rule for finding the sum. The rule is* “Double the number thus obtained and deduct 2. This will give the total number.” This however is deduced from $\frac{ar^n - a}{r - 1}$ by putting $a = 2$ and $r = 2$. In later times, the second method of finding the sum was borrowed by Prithudak Svāmī (864 A.D.). This we learn from his own admission† that “the method here shown is from the combination of metre in Prosody.” He however gave the rule in general terms unlike Piṅgala who as we have already seen dictated the rule for a case where both the first term and the common ratio is 2. In his own words it is “to show the rule for finding the sum of a series increasing two-fold, three-fold, etc.‡ The rule as given by him is “At half the given period put ‘Square’ and at unity (subtracted) put ‘Multiplier’ and so on until the period is exhausted. Then square and multiply the common multiplier inversely in the order of notes. Let the product less one be divided by the amount of the initial term; and call the result area (or sum), the progression being (geometrical) two-fold, etc.”§ This gives $S = \frac{ar^n - a}{r - 1}$.

Exactly the same rule as given by Prithudak appears in the *Ġaṇita-sāra-saṁgraha* of Mahāvīra (850 A.D.).|| The above formula is found in the *Trilokasāra* of Nemichandra.¶ Mahāvīra gave also the form $S = \frac{rar^{n-1} - a}{r - 1}$. The rule appears amongst the

Arabians in the work of Al-Biruni’s *India* in connection with a chess-board problem which he might have learnt during his Indian tour.** Further it is found in the *Liber-Abaci* of Fibonacci†

* *Ibid*, 8, 32.

† Colebrook : *Hindu Algebra*, p. 291.

‡ *Ibid*.

§ *Ibid*.

|| II, 94 and 93.

¶ *Trilokasāra*, loc. cit., Rule 231.

** Smith, II, p. 502.

†† *Ibid*.

(1202) which though was the translation of an Arabic work, had undoubtedly an Indian treatise as its remote source. Smith suggested that "the Arabs apparently obtained the rule for the summation from the Greeks"* but he has adduced no evidence in favour of his contention. As we have just seen it was then taken to Italy and was spread in Europe.

From the above Mahāvīra deduced three rules for finding the common ratio, first term and number of terms.

His rule for finding common ratio : † "That quantity by which the sum of the series divided by the first and (then) lessened by 1 is divisible throughout (when this process of division after the subtraction of 1 is carried on in relation to all the successive quotients) time after time (that quantity) is the common ratio." The principle on which this method is based will be clear from the following :—

$$\frac{a(r^n - 1)}{r - 1} \div a = \frac{r^n - 1}{r - 1} \text{ and } \frac{r^n - 1}{r - 1} - 1 = \frac{r^n - r}{r - 1}$$

which is obviously divisible by r .

Rule‡ for finding out the first term : "The *gunadhana* (sum) when divided by that self multiplied product of the common ratio in which (product the frequency of the occurrence of this common ratio) is measured by the number of terms (in the series), gives rise to the first term."

He gave another rule :—§ $a = \frac{a(r^n - 1)}{r - 1} \times \frac{r - 1}{r^n - 1}$.

Rule|| to find out number of terms : "Divide the *gunadhana* (of the series) by the first term thereof. Then divide this (quotient) by the common ratio (time after time) so that there is nothing left (to carry out such a division any further); whatever happens (here) to be the number of vertical strokes (each repre-

* *Ibid.*

† II, 97 and 101.

‡ II, Rule 97.

§ II, 101.

|| II, 98.

sents a single such division) so much is (the value of) the number of terms in relation to the given sum.”

Mahāvīra's highest contribution to the subject was the complex series.*

$$a + (ar \pm m) + \{(ar \pm m)r \pm m\} + [\{(ar \pm m)r \pm m\}r \pm m] + \dots \text{to } n \text{ terms}$$

$$= S' \pm \frac{\left(\frac{S'}{a} - n\right)^m}{r-1}$$

where $S' = a + ar + ar^2 + \dots$ to n terms.

The Hindus were interested in dealing with elementary cases of complex series also, from the early centuries of the Christian Era. In the *Bākshali Ms.* there are certain cases, the law of formation of which is quite clear. If a_1, a_2, a_3, \dots denote the successive terms of any series, we have the following series :—

- (i) † $a_1 + 2a_1 + 3a_1 + 4a_1 + \dots na_1$.
(ii) † $a_1 + 2a_1 + 3a_2 + 4a_3 + \dots na_{n-1}$.
(iii) § $a_1 + 2a_1 + 3(a_1 + a_2) + 4(a_1 + a_2 + a_3) + \dots$

The sequence of this type is called *Yutivargakrama*. From (i), (ii), and (iii) with the help of series $b + (b+d) + (b+2d) \dots$ we have

- (iv) || $a_1 + (2a_1 \pm b) + 3a_1 \pm (b+d) + 4a_1 \pm (b+2d) + \dots$
(v) ¶ $a_1 + (2a_1 + b) - \{3a_2 + (b+d)\} + \{4a_3 + (b+2d)\} + \dots$
(vi) ** $a_1 + (2a_1 + b) + \{3(a_1 - a_2)(\pm b + d)\} + \{4(a_1 + a_2 + a_3) \pm (b+2d) + \dots$

The sequence of this type is called *Yutaganita Yutakrama* of *Yutaganitarṇakrama* according as the upper or lower sign in the terms are taken. By combining the series $a_1 - a_1r - a_1r^2 - a_1r^3 \dots$ with another $a_1 - (a_1 - a_2) - (a_1 - a_2 - a_3)$ we have

- (vii) †† $a_1 - (a_1r - da_1) - a_1r^2 - d(a_1 - a_1r) - a_1r^3 - d(a_1 - a_1r - a_1r^2) \dots$

* II, Rule 314.

† Folio 24 verso.

‡ 23 recto.

§ 23 recto and verso.

|| 25 verso and 26 recto.

¶ 24 recto.

** 24 verso and 25 recto.

†† 51 recto and verso.

THE HINDU TERMS FOR AREA

BY

GURUGOVINDA CHAKRAVARTI, M.A., B.Sc.

In the February issue of 1927 of the American Mathematical Monthly Dr. Solomon Gandz observed that there are three terms, relating to area, *taksîr*, *thisboreth* and *thebaryāthā*, that show an "interrelation amongst ancient peoples which is significant in the history of primitive culture." The concrete concept underlying these terms is to break up plane surface into elementary squares and then to calculate their sum for finding the total area. Dr. Gandz pointed out that the first of these terms *taksîr* can be traced to the earliest Arab mathematician, Al-Khowārizmī (c. 825), the second to the Hebrew scholar, Savasorda's (c. 1100) *Hibbūr ha-Meshīhah Weha-Thisboreth* and the third in the commentary on Erubin (146), by Rabbi Hananel of Kairuan (c. 990-1050). The idea of breaking up a surface into elementary parts can however be traced as early as in the Hebrew geometry *Mishnath ha-Middot*, believed to have been written about 200 A.D. Furthermore, he suggested that the term *taksîr* was derived from the Hindu term *Kṣetraphala*. This suggestion is however not fully accurate and I think that the Arabic word *taksîr* is derived from the Sanskrit word *takṣana* meaning "to cut into pieces." In fairness to Dr. Gandz, it must however be said that he himself was not sure of his suggestion and hence invited the attention of the Sanskrit scholars to examine the matter more closely and in response to that I have undertaken this work. In fact the Hindu side was not properly developed in the article, the proper determination of which will show that the idea of "breaking up" was known to the Hindus at least a thousand years before the Hebrews.

The Hindu terms for area are six in number, and these are "*Bhūmi*," "*Gaṇitapada*" often abbreviated to the form '*Gaṇita*,'

“ *Kṣetraphala* ” often abbreviated to the form ‘ *Phala* ’ and “ *Samakoṣṭhamiti*. ” The term “ *Bhumi* ” appears in the *Sulba Sūtras** and literally means “ *Earth* ” from which it came to denote “ *surface*. ” It seems that in later times the use of the term was discarded.

The term *Gaṇitapada*, which does not seem to have heretofore been discussed, appears in its Prākṛit form “ *Gaṇiyapaya* ” in the *Br̥hat Kṣetra Samāsa* of Jinabhadragani (629-689 A.D.)† The term *Gaṇita* appears in *Jambudvīpa Samāsa*‡ and *Tattvārthādhigama Sūtra-bhāṣya*§ of Umāsvāti. Literally it means “ *calculated* ” and hence has no particular significance. But in the sense of area it has been doubtless abbreviated from *Gaṇitapada*. It therefore appears that the term *Gaṇitapada* is older than the first Century A.D., i.e., the time when Umāsvāti flourished.

The question now arises as to the origin and meaning of *Gaṇitapada*. The term *pada*, as has been conclusively proved by Dr. Datta, means an elementary or unit square plot. The term *Gaṇitapada* therefore signifies “ *the calculated sum of elementary squares*. ” This involves the idea of breaking up the whole surface into unit square plots to find the area.

Next we come to the term *Kṣetraphala* together with its abbreviated form *Phala*. The term *Kṣetraphala* is an expression for the area in terms of the results obtained in an enclosed plot of ground irrespective of any consideration being made for the actual operation followed in obtaining the result as has been done in the case of *Gaṇitapada*. The term *Kṣetra* literally means *Earth* and thence from the time of Yājñavalkya it came to denote an “ *enclosed plot of ground* ” or a “ *portion of space*. ” || Umāsvāti has also used it in the sense of a bounded figure in general. Thus for

* चतुरस्रस्याक्षयारज्जुर्द्वितावती भूमिं करोति । G. Thibaut : “ *On the Sulba Sūtras*, ” J.B.A.S., 1875, Reprint, p. 7.

† Edited with the commentary of Malayagiri, 1921, Bhavanagara, I. 7.

‡ *Jambudvīpa Samāsa*, Ahnika 4. विष्णुपदादाभ्यक्तः स गणितम् ।

§ *Tattvārthādhigama Sūtra-bhāṣya*, Ch. III, Sūtra II (Bhāṣya) :

स विष्णुपदादाभ्यस्तौ गणितम् ।

|| Yājñavalkya, II, 156.

instance, he has used “ *Vṛtta Kṣetra* ” for a “ circular figure.” * *Phala* in Sanskrit literature means fruit or result. The meaning of *Kṣetrāphala* is therefore the result in an enclosed plot of ground. It is thus quite clear why the term was chosen.

The last of the Hindu terms is *Samakoṣṭhamiti*—last both in point of time as well as in point of merit. Its earliest application can only be traced in the *Līlāvātī*. The origin of the name lies in an attempt to distinguish the two separate methods by which the Hindus used to find the area of a triangle. One of these methods can be represented as $A = \sqrt{s(s-a)(s-b)(s-c)}$ † where A = area, s = semi-perimeter and a , b and c are the sides. The other method is represented as $A = \frac{1}{2} \text{ base} \times \text{altitude}$. ‡ The rationale of the last method as given by the commentators is to find an equivalent rectangle (*samakoṣṭha*) to the triangle. This is fully borne by Bhāskara's own statement. Under both the rules he has given the same example and under the one which he calls “ *samakoṣṭha* ” he has clearly asked to find the area by the method known as *Samakoṣṭha* : “ *tatra.....Kathya.....Samakoṣṭhamitīm phalākhyam* ” § (Tell the dimensions by like compartments termed area), while in the same example under the other rule he says, “ *Anēna prakārena tribāhukī tadēva Vāstabam phalam* 84 ” || (By the present method the area comes out the same, viz., 84.)

Let us now come to the question as to the origin of the word *taksīr*. Dr. Gandz, relying on the commentators Gaṇeśa and Suryadāsa, who interpret the terms *phala*, *kṣetrāphala*, *gaṇita* and *samakoṣṭhamiti* to mean the “ measure of like compartments, or number of equal squares of the same denominations (as cubit, fathom, finger, etc.) in which the dimensions of the sides are given, i.e., the area or the superficial content ” ¶ and on Prithūdaksāmī

* See Fn. 2 : विष्णुबर्गदशगुणकरणीवृत्तचैत्रपरिधिः ।

† *Līlāvātī*, H. C. Banerji's Ed., Rule 167.

‡ *Ibid*, Rules 163-64.

§ *Ibid*, Rule 165.

|| *Ibid*, Rule 168.

¶ H. T. Colebrook : *Algebra with Arithmetic and Mensuration from the Sanskrit of Brahmagupta and Bhāskara*, Lond., 1817, p. 69, note 6. Henceforth it will be called *Hindu Algebra*, p. 296, note 2.

whose explanation of the term *Kṣetraphala* is "The area of a figure is represented by little square compartments formed by as many lines as are the numbers of the upright and the sile,"* held that the term *taksīr* was derived from the Hindu term *Kṣetraphala*. This suggestion, so far as sound is concerned, contradicts all rules of philology and when we turn to the question of sense, we see that the term *Kṣetraphala* itself does not represent the idea of "breaking up"—nay it does not even represent the actual operation of finding the area, whereas the underlying principle of the term *taksīr* is to "break up." What I propose to suggest is that *taksana* was the Hindu term which in the Arabic literature became *taksīr*. This term means "to cut into pieces," "pare" or "abrade" and has been found in our literature from the early *Rgvedic times*.† In later times its use was extended to denote other things, which too, principally, denote the idea of cutting into pieces, for instance it was used in connection with sawing.

But my suggestion has got one shortcoming. Although the term has been found to be used in mathematical works in connection with the rules of indeterminate equation, in the great arithmetical classic of India, the *Līlāvātī* of Bhāskara, not a single instance of the use of the term in the sense of area has been found in any work—mathematical, non-mathematical or pseudo-mathematical. In spite of this defect, our suggestion seems to be better than that of Dr. Gandz, for it is not defective of one leg, as there is no sacrifice either of sense or of sound.

Before we conclude, it must however be noted that the idea of breaking up into fractions, is much older than the representative terms. In the *Sulba Sūtras*, we have a clear instance of its application :

"As many measures (units of some measure) a cord contains, so many troops or rows (of small squares) it produces (when a square is drawn on it)."‡

* *Hindu Algebra*, p. 296, note 2.

† Monier Williams.

‡ Thibaut : " *On the Sulba Sūtras*," p. 48, *loc. cit.*

ON THE EARLIEST HINDU METHODS OF QUADRATURES

BY

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The subject, on which we are just going to speak is on the methods by which the earliest Hindu rules of Quadratures were found out. The quadrature problem is one of those in which the largest number of people of almost all the nations from the very earliest times down to the modern times were interested. The importance of the study is therefore not of ordinary antiquarian interest. The comparative study of these methods with those of the other nations will help us in examining the relation amongst ancient peoples which is of special significance to the students of primitive culture. It has, besides, an importance from the standpoint of modern mathematics too, which will be apparent from the following quotation :—“ The craze for a new solution once rose to such a pitch that in the year 1775, the Paris Academy found it necessary to protect its officials against the waste of time and energy involved in examining the efforts of circle squarers.” *

The Hindu study began from the earliest period of the R̥g-veda. In the *Sulba Sūtras*† we find the following rules :—

(1) If you wish to turn a square into a circle, stretch a cord from the centre towards one of the corners, draw it round the side and describe the circle together with the third part of the piece standing over ; this line gives a circle which is approximately (the literal translation would be “ not exactly ”) equal to the square for as much there is cut off from the square (*viz.*, the corner of

* Dr. Bibhutibhusan Datta, D.Sc. : “ *The Hindu Contributions to Mathematics*,” Bull. Math. Assn., Allahabad, Vols. I and II (1927-29), Reprint, p. 8.

† Dr. Thibaut : “ *On the Sulba Sūtras*,” J.B.A.S., 1875.

the square), quite as much is added to it, *viz.*, the segments of the circle lying outside the square).^{*} This comes to

$$D = a + \frac{a}{3} (\sqrt{2} - 1) \text{ where } D = \text{diameter and } a = \text{side of square.}$$

(2) If you wish to turn a circle into a square, divide the diameter into eight parts and again one of these eight parts into twenty-nine parts. Remove twenty-eight parts and moreover the sixth part (of the one left) less the eighth part (of the sixth part). The meaning is

$$\frac{7}{8} + \frac{1}{8.29} - \frac{1}{8.29.6} + \frac{1}{8.29.6.8}.$$

This rule is given only by Baudhāyana.

(3) Or else divide (the diameter) into fifteen parts and remove two. The remaining thirteen parts is the gross side of the square.

Along with these a fourth rule may be mentioned. The rule although is not found in earlier works, seems to have been based on old traditions. The rule is to take half of the portion of the piece standing over instead of the third part in rule (1) when it comes to $D = a + \frac{a}{2} (\sqrt{2} - 1)$. It is found in the *Agni Purāṇa* and the *Tantra-Samuccaya*.[†] The method that was followed by the Hindus

^{*}I differ from the translation of Dr. Thibaut.. The portion सा नित्यामण्डलं of the original चतुरस्रं मण्डलं चिकीर्षन् मध्यात् कोटयः निपातयेत् पार्श्वतः परिक्रम्यातिशयं तृतीयेन सह मण्डलं परिखिन्ते। सा नित्या मण्डलं यावद् ज्ञेयते तावत् आगन्तु। has been translated as:—“This line gives a circle exactly as large as the square.” This opposes the explanations of Kapardisvāmī, Āpastamba’s commentator, who combined into “sanitya” the two words sã and anitya and explains: this line gives a circle which is not exactly equal to the square. Dr. Thibaut remarks that we should not be justified in giving to Āpastamba the benefit of this explanation. The words ‘yāvadhriyate,’ etc., seem to indicate that he was perfectly satisfied with the accuracy of his method and not superior, in his point, to so many circle-squares of later times. The commentator who, with the mathematical knowledge of his time, knew the rule was an imperfect one, preferred very naturally the interpretation which was more creditable to his author.

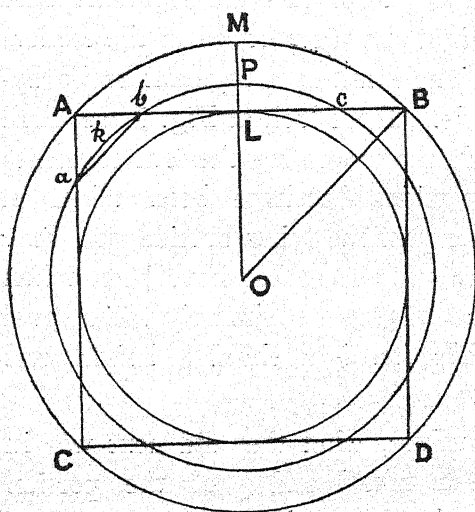
Later on I will show that the expression ‘yāvadhriyate etc.’ is the clue to infer their method and that this very expression suggests that they knew that the circle thus obtained was only an approximate one.

[†] Nārāyaṇa: Tantra-samuccaya, ed. T. Ganapati Sastri, Trivandrum Sanskrit Series (1919), Patala 2, śls. 65, 67-68, Patala 12, 81, 27. There are many other values of π given.

at the dawn of the quadrature problem seems to be this :—In the case of circling the square, they at first drew two circles with the cutting point of the diagonals as the centre and one with the radius equal to half of the diagonal and the other with half of the side of the square. The circumscribed circle was found to be just too great and the inscribed one to be just too less. They therefore took the mean of these two radii to draw a circle approximately equal to the square. Likewise in the case of squaring the circle they followed the same principle. They at first drew a circumscribed square and an inscribed one which can be the greatest within the circle. The one was found to be too great and the other one too small. They therefore drew a square with the side mean between the outer square and the inner square. In this way the value of the diameter given in the case of circling the square is $D = a + \frac{a}{2}(\sqrt{2}-1)$ and of the side in the case of squaring the circle

is $a = \frac{7d}{8}$ where a = side and d = diameter.

The above statements will be clear from the following two figures :—



ABCD is the square to be circled.
OL is the radius of the inscribed circle. OM of the circumscribed circle. Mean length of OL and OM is OL plus half of ML = LP.

$$\therefore \text{The mean radius} = \frac{a + \frac{a}{2}(\sqrt{2}-1)}{2}$$

\therefore The mean diameter is

$$a + \frac{a}{2}(\sqrt{2}-1)$$

Fig. 1. For circling the square.

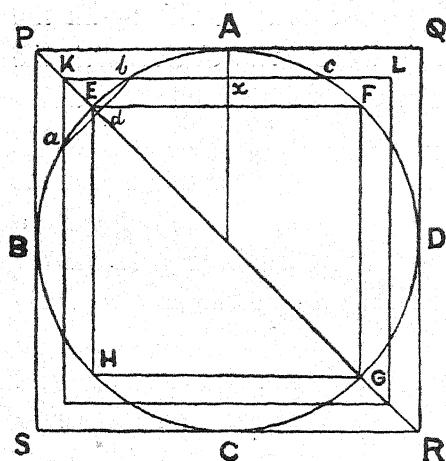


Fig. 2. For squaring the circle.

ABCD is the circle to be squared. The outer square is PQRS and the inner is EFGH. The side of the outer square is equal to the diameter $=d$.

$$\therefore \text{the side of the inner square} = \frac{d}{\sqrt{2}}.$$

Taking the value of $\sqrt{2}$ up to the first order of approximation from the one of *Sulba Sūtra*

$$1 + \frac{1}{8} + \frac{1}{3.4} - \frac{1}{3.4.34}.$$

We have the side of the inner square

$$\frac{\frac{d}{4}}{\frac{3}{8}} = \frac{3d}{4}$$

$$\text{The mean side} = \frac{d + \frac{3}{4}d}{2} = \frac{7d}{8}.$$

But soon they realised that the above values are too inaccurate, very likely at the time of practically applying the rules in constructing the *Sāra-ratha-cakra-cit* and the circular *gārhapatya agni* respectively. To get more accurate values, they therefore applied the principle of equating the portions cut off with the portion that has been taken in and to do this the segments were taken equal to $\frac{1}{2} \times \text{chord} \times \text{height}$ and the portions at the corners which are really equal to a triangle minus a segment to be approximately equal to the triangle. If we look at Fig. 1 we shall see that the portion lying outside the square are the four segments one of which is *Pbc* and the portions that have been taken in *Aakb*. Likewise in Fig. 2, the portions lying outside are four segments one of which is *Abxc* and those that have been taken in *kadb*. The segment *Pbc* was taken approximately to be equal to the two triangles *PLv* and *PLc*, i.e., $\frac{1}{2} \times \text{chord} \times \text{height}$, and the portion *Aakb* to be equal to $\triangle Aab$.

To get more approximate values, what they did next was in the case of circling the square to take $\frac{1}{3}$ and $\frac{1}{4}$ of the portion standing over and then to apply the above principle of verification. It was found out that if $\frac{1}{3}$ of the portion standing over is taken

the portions lying outside the square is more approximately equal to the portions that have been taken in, than when $\frac{1}{2}$ and $\frac{1}{4}$ of the portion standing over is taken, whence the rule

$$D = a + \frac{a}{3} (\sqrt{2} - 1).$$

In the case of squaring the circle, similarly it was found that if the diameter is divided into 8 parts and out of them 7 parts are taken, the value was too great, and if by dividing into 7 parts, 6 parts are taken by removing 1 part the result is too less. They therefore divided it into $7\frac{1}{2}$ parts and removed 1 part and took $6\frac{1}{2}$ parts or to avoid fraction divided the diameter into 15 parts and removed 2 parts. But soon this, too, was found to be too incorrect. Therefore they derived a value from

$$D = a + \frac{a}{3} (\sqrt{2} - 1).$$

If a be the side of the square equivalent to the circle of diameter d , then

$$a_1 = \frac{d}{1 + \frac{1}{3}(\sqrt{2} - 1)} = \frac{1224d}{1393}$$

But we have already got $a_1 = \frac{7d}{8}$ as the first approximation.

$\therefore a_1 = \frac{7d}{8} + \epsilon$ where ϵ is the correction for the first approximate value.

$$\begin{aligned} \therefore \epsilon/d &= \frac{1224}{1393} - \frac{7}{8} = \frac{9792 - 9751}{8 \cdot 1393} = \frac{41}{8 \cdot 1393} = \frac{48 - 7}{8 \cdot 1393} = \frac{1}{8 \cdot 29\frac{1}{8}} - \frac{7}{8 \cdot 1393} \\ &= \frac{1}{8 \cdot 29} - \frac{7}{8 \cdot 8 \cdot 29 \cdot 6\frac{1}{2}} = \frac{1}{8 \cdot 29} - \frac{8 - 1}{8 \cdot 8 \cdot 29 \cdot 6} \\ &= \frac{1}{8 \cdot 29} - \frac{1}{8 \cdot 29 \cdot 6} + \frac{1}{8 \cdot 29 \cdot 6 \cdot 8} \end{aligned}$$

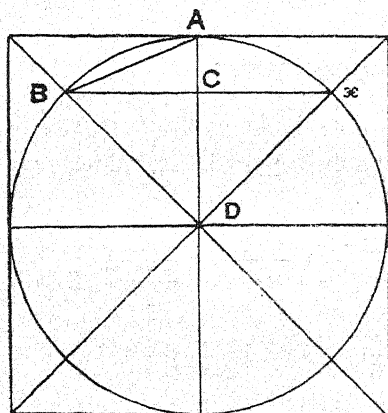
$$\therefore a_1 = \left(\frac{7}{8} + \frac{1}{8 \cdot 29} - \frac{1}{8 \cdot 29 \cdot 6} + \frac{1}{8 \cdot 29 \cdot 6 \cdot 8} \right) d.$$

From the above it is clear that the clue to infer the methods was the expression *yāvadhriyate*, etc., and it suggests that Āpastamba knew that the value $D = a + \frac{a}{3}(\sqrt{2}-1)$ was only an approximate one. Besides these we learn that the author of the *Sulba Sūtras* used the formula for the segment of a circle as $\frac{1}{2} \times \text{chord} \times \text{height}$.

There is however another old Hindu method of Quadrature, namely, that of finding the value of $\pi = \sqrt{10}$. It was hitherto known that this value of π was of Chinese origin, but Dr. B. Datta has shown that about 500 B.C. it was used in the Jaina canonical works which antedates the earliest Chinese document in which it is found. In fact it is an Indian value for it is derived only by taking the Hindu value of

$$\sqrt{2} = 1 + \frac{1}{3} + \frac{1}{3.4} - \frac{1}{3.4.34}$$

up to the first order of approximation. Short hints have been given in Mādhava's commentary on Nemichandra's Trilokasāra that in deriving the value $\pi = \sqrt{10}$, the perimeter of the octagon was equated to the circumference of the circle. The following calculations will make the whole thing clear :—



$$AB^2 = AC^2 + BC^2$$

$$BC^2 = \frac{1}{4}Bx^2 = \frac{1}{4} \cdot \frac{d^2}{2} = \frac{d^2}{8}$$

$$BC = \frac{d}{2\sqrt{2}} = \frac{3d}{8}$$

$$AC = AD - DC = \frac{d}{2} - \frac{3d}{8} = \frac{d}{8}$$

$$AB^2 = \frac{d^2}{64} + \frac{9d^2}{64} = \frac{10d^2}{64}$$

$$\therefore AB = \frac{d\sqrt{10}}{8}$$

$$\therefore \text{Perimeter of the octagon} = \frac{d\sqrt{10}}{8} \times 8 = d\sqrt{10}.$$

SURD IN HINDU MATHEMATICS

BY

GURUGOVINDA CHAKRABARTI, M.A., B.Sc.

Beginning of the Hindu Conception.

“ The Hindus did not confine themselves to the treatment of rational numbers only. They gave almost equal importance to the irrational numbers or surds.” It was perhaps not far in point of time from the earliest beginning of the sacrifices, as handmaid of which the practical geometry of the Hindus grew, that a necessity arose for finding an arithmetical expression for the diagonal of a square, required so much for the construction of the altars. It was probably this very circumstance that led to the detection of the irrationality of numbers, the earliest definite trace of the recognition of which, is found in the *Sulba-sūtra* of Baudhāyana, believed to have been composed in c. 800 B.C. by such authorities as are competent to pass opinion on the subject. The instance in question is :*

$$\sqrt{2} = 1 + \frac{1}{3} + \frac{1}{3.4} - \frac{1}{3.4.34} \text{ together with an additional}$$

remark “ Saviśeṣa.”

Amongst the other ancient nations Proclus attributes to Pythagoras the knowledge of incommensurability of the diagonal and the side of a square. From other evidences it is known that the followers of Pythagoras laid the foundation of a general theory of irrationality in the 4th century B.C.† The Chinese seem to have been unaware of this. The Egyptians and the Babylonians are also not known to have treated it. This comparison therefore establishes the claim for the ancient Hindus, the credit for the

* *Baudhāyana Sulba-sūtra* (to be hereafter referred to as B.Śl. Sū., Śls. 61-2; *Āpastamba Sulba Sūtra* (to be hereafter referred to as Ap. Śl. Sū. 1.6; *Kātyāyana Sulba Parisiṣṭha* (to be hereafter referred to as Kā. Śl. P. ii. 13.

† Smith, *History of Mathematics*, Vol. II, p. 252.

first discovery of the irrationals. Thibaut,* Bürk,† Garbe,‡ Hopkins§ and Macdonell|| are also of this opinion. But Zeuthen, Cantor and Vogt¶ have severely criticised and opposed this, without sufficient warrant, although the term ' *Saviśeṣa* ' signifies that they knew the irrationality of $\sqrt{2}$. The literal meaning of the term however does not suggest anything beyond the mere fact

that they were aware that the value $1 + \frac{1}{3} + \frac{1}{3.4} - \frac{1}{3.4.34}$ was only an approximate one, for it means " a correction in excess." But full reliance should not always be placed with the literal meaning of a term for its proper import. The history of the use of a term is none the less than an important factor in so determining, and if that is taken into account, we find that Kapardisvāmi, a commentator of the *Āpastamba Śulba-sūtra* of the 15th century truly attributed to the authors of the *Śulba-sūtras* the knowledge of the fact that the " excess " cannot be completely (' corrected.' " He says, " In any case there will be an excess even by a fraction of the smallest part of a minute *nivāra* grain falling from the mouth of a parrot."**

Happily enough, we find the term ' *Viśeṣa* ' to have been used in the Jaina canonical works and it is still more significant that all the cases in which it has been used are of irrational numbers. Thus, for instance, we find in the *Suryaprajñapti* (c. 500 B.C.) that the circumference of a circle whose diameter is 99640 *yojanas* is stated as 315089 *yojanas* and a little over (*kincid viśeṣādhika*) ; that the circle of diameter 100660 *yojanas* is stated

* G. Thibaut, " *On the Śulba-sūtras*," J.B.A.S. (1875), p. 13.

† Z.D.M.G. XLVI, p. 330; cf. also XLV, p. 557 fn. 1.

‡ R. Garbe, *Philosophy of Ancient India*, pp. 3a ff.

§ Hopkins, *Religion of India*, pp. 559 f.

|| Macdonell, *History of Sanskrit Literature*, p. 442.

¶ H. G. Zeuthen, " *Theorem de Pythagore origine de la geometrie Scientifique*." Comptes Rendus due II^{me} Congress Intr. de philosophie, Geneva, 1904; M. Cantor " *Über die älteste indische Mathematik*." Arch d' Math. u-phys., viii, (3) 1905. H. Vogt, " *Haben die alten Inder dess Pythagoreischen Letirsatz und das Irrationale gekannt?* " Bib. Math. VII (3), 1906, pp. 6-23.

** See Kapardisvāmi's commentary on *Āpastamba Śulba-sūtra*. The work is still in MS. For the MSS. see my catalogue.

to be 318315 and a little less (*kiñcid viśeṣūna*). In the *Jambudvīpa-prajñapti* (c. 300 B.C.) the circumference of the Jambudvīpa which is of the shape of a circle of 100000 *yojanas* in diameter, is mentioned as 316227 *yojanas*, 3 *gavayutis*, 128 *dhanus*, 13½ *angulis* and a little over (*kincid viśeṣādhika*). In all these cases the formula used is $\sqrt{\pi^2 D^2}$ where $\pi = \sqrt{10}$ and D = diameter. This also clearly shows that the Jainas had to evaluate different surds.*

Again, in point of time the *Sulba-sūtras* and the Jaina canons are not widely separated; rather the latest of the former and the earliest of the latter merge into the same period. Under the above circumstances that the early Hindus used a term “*viśeṣa*” wherever any approximate value of a square root was taken, just to indicate that the value taken was only an approximate one and that there is not a single instance of the use of the term in a case whose exact root can be found out, are we not fully justified to believe that they possessed a knowledge of the irrationality of numbers. There is one more significant fact which deserves notice. In the different *Sulba-sūtras* we find many approximate values of $\sqrt{2}$. Do these not indicate that the early Hindus made a serious attempt to find the exact value of $\sqrt{2}$? Are these values not records of the approximations they arrived at in the course of their attempt to find the exact value? Is it reliable that even after so much attempt they could not come to the conclusion that the value of $\sqrt{2}$ cannot be exactly determined? Lastly we find in the *Trilokasāra* (c. 1000 A.D.) that the term ‘*Saviśeṣa*’ has been used in the sense of “approximately” in quite unambiguous terms.†

It further seems that the irrationality of numbers was detected some centuries before the *Sulba-sūtras* began to be composed. There are two rules for the determination of the relative positions of the three *agnis*—*Āhavanīya*, *Dakṣināgni* and *Gārhapatya* both of

* Dr. B. Datta, “*The Jaina School of Mathematics*,” Bull. Cal. Math. Soc., Vol. XXI, No. 2, 1929, p. 132.

† *Trilokasāra*. Edited by Nathuram Premi, Bomb. 1919, p. 41.

which require the evaluation of the Surds $\sqrt{2}$ and $\sqrt{5}$. The first one which is the cruder and hence the earlier is given by Baudhāyana,* Kātyāyana† and Manu.‡ This seems to suggest that the rule was derived by these authors from a still more ancient source. There is no room for the conjecture that two of the above three authors derived it from one or the earliest of them; for the rule itself shows that even the earliest of these authors gave in a single rule two different traditions that were before him. This rule begins like this; “Or else divide the distance between the *Gārhapatya* and the *Āhavaniya* into five or six equal parts; add (to it) a sixth or seventh part.” The two traditions were “to divide into five parts and to add to it the sixth part and to divide into six parts and to add to it the seventh part.” The second given by Baudhāyana and Āpastamba seems to be later than the first one. Further, Āpastamba says that “this is according to the *Śrutis*, the position of *Dakṣināgni*.”§ In the *Śrauta-sūtra* of Āpastambā (c. 1200 B.C.) also we find a rule for the determination of the relative positions of the three *agnis*.||

Incidentally, we have mentioned before that the early Hindus evaluated the surd $\sqrt{5}$ which goes to show that their knowledge of irrationality was not confined to $\sqrt{2}$; rather unlike the followers of Pythagoras they did not think of the irrationality of $\sqrt{2}$ as a peculiarity of the square. But this requires to be substantiated and for the purpose we quote the following rules (already mentioned before):—

- (1) “With the third part of the length (*i.e.*, the distance between the *Gārhapatya* and *Āhavaniya*) describe three squares closely following one another (from the west towards the east); the place of the *Gārhapatya* is at the north-western corner of the western

* *B.Sl. Sū.* See *post.*

† *Kā. Sl. Sū.* See *post.*

‡ *Mā. Sl. Sū.* See *post.*

§ *Ā. Sl. Sū.* IV, 4.

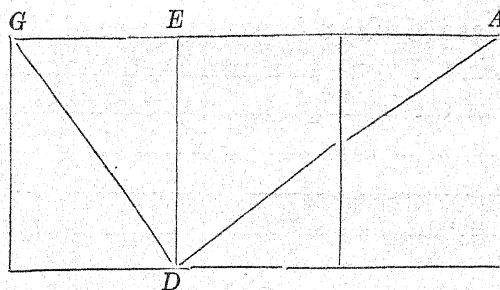
|| *Ap. Śr. Sū.* V, 4.5,

square ; that of the *Dakṣināgni* is at its south-eastern corner ; and the place of the *Āhavaniya* is at the north-eastern corner of the eastern square.” *

(2) “ Or else divide the distance between the *Gārhapatya* and *Āhavaniya* into five or six (equal) parts ; add to it a sixth or seventh part ; then divide (a cord as long as) the whole increased length into three parts and make a mark at the end of the two parts from the eastern end (of the cord). Having fastened the two ends of the cord (to the two) poles at the extremities of the distance between the *Gārhapatya* and *Āhavaniya*, stretch it towards the south, having taken it by the mark and fix a pole at the point reached. This is the place of the *Dakṣināgni*.” †

(3) “ Or else increase the measure (between the *Gārhapatya* and *Āhavaniya*) by its fifth part ; divide a cord (as long as) the whole into five parts and make a mark at the end of the two points from the western extremity (of the cord). Having fastened the two ties at the ends of the east-west line, stretch the cord towards the south having taken it by the mark and fix a pole at the point reached. This is the place of *Dakṣināgni*.” ‡

These three rules show that they at first determined the position of the three *Agnis* geometrically in this way :



* *B. Sl. Sū.* i. 67.

† *B. Sl. Sū.*, i. 68.; *K. Sl. P.* i. 29; *Mā. Sl. Sū. Sec.* iii.

‡ *Ibid.*, i. 69; *Āp. Sl. Sū.* iv. 4.

and then proceeded to determine the length of GD and AD and to find the fraction of AG by which itself is to be increased so as to make it equal to AD + GD and then having determined the ratio of AD and GD dictated the rules. That this was the method followed is also clear from the different directions as to the fraction to be increased and the ratio in which AG is to be divided. The different directions presupposes different approximate values of GD and AD and this shows clearly that their whole attempt was to determine accurately in arithmetical numbers the value of GD and AD before drawing up the rules. Now the only method of finding GD and AD in arithmetical numbers is to evaluate $\sqrt{GD^2}$ and $\sqrt{AD^2}$ which they knew to be $\sqrt{2}$ and $\sqrt{5}$ by the two rules already known to them :—

1. The square on the diagonal of a square is equal to twice the square on the side.*

2. The square on the diagonal of a rectangle is equal to the sum of the squares on each side.†

The Hindu and the Greek Treatments compared.

At this late hour we cannot exactly ascertain whence did the Greeks get their first idea of irrationals. As to whether it was their original discovery or they derived it from the Hindus, all documents are silent except the unreliable testimony of Proclus‡ (c. 460 A.D.). He did not live within 1000 years of Pythagorus. It would seem as if such an important piece of history would have some mention in the works of a man like Aristotle and particularly in the works of the Pythagorean mathematicians who flourished before Proclus, such for example Plutarch (1st century), Cicero (50 B.C.), Laertius (2nd century), Athenaeus (c. 300). It is all the more significant that all these authors except Aristotle were

* "On the Sulba-sūtras" by Thibaut. *Loc. cit.*, p. 7.

† *Ibid.*

‡ Smith, II, p. 251.

very keen about attributing to Pythagorus the discovery of the theorem associated wrongly with his name.* How are we then to rely on him? It seems that it was his surmise, for he did not find it in the writings of any other former writer nor was he aware of any indebtedness of Pythagorus to any source for it.

In the absence of any authentic evidence on the contrary we are free to conjecture that Pythagorus got the hint of the irrationality of numbers from some foreign source. And our belief is all the more strengthened because it has long been known that his credit is not for the discovery of the theorem but for its proof.

Before the Greeks, the Egyptians, the Hindus and the Chinese knew of the proposition. Prof. Peet† has shown that there is nothing in Egyptian mathematics that suggests that the Egyptians knew the geometrical truth of the relation $3^2 + 4^2 = 5^2$ or the like. Of the Hindus and the Chinese there is no evidence to show that the Greeks had any cultural contact with the early Chinese whereas the Greek Democratus (c. 400 B.C.) refers to the *Harpedonaptaes*‡ meaning "rope stretchers" who are analogous to the "*Sama-sūtra-nirañchaka*," i.e., the uniform rope stretchers of the Vedic age. The source of Pythagorus is therefore believed to be the Hindus with respect to his proposition and it seems to be very likely that he derived his knowledge of the irrationals from that very source and at the same moment he derived the knowledge of his proposition and it is not very unlikely as Pythagorus is known to have travelled in the East.

But the relation, if there be any, is so far. After that we find that the two treatments have taken two different channels. "The Greeks studied the subject with reference to geometry and as exclusively belonging to it rather than to arithmetic. Even men like Diophentus carefully avoided the occurrence of the irrational numbers in his *Arithmetica* sometimes even by leaving the

* *Ibid*, pp. 288-9.

† Peet, "*Rhind Mathematical Papyrus*," London, 1923.

‡ Democratus refers to the Egyptian geometers by this. But the conception of the term is neither Egyptian nor Greek.

problem." The Hindus, however, dealt with the arithmetic of Surds. The so many arithmetical values of Surds mentioned in the *Sulba-sūtras** and the use of the same in the arithmetical expressions of the Jaina canons, hereinbefore mentioned makes it perfectly clear that the arithmetic of Surds is purely a Hindu contribution to Mathematics. The comparative study of the terminology of these two nations also leads to the same conclusion.

Terminology.

The Greek term for the Surd is *áloga* which means "without ratio." This shows that the Greek idea of irrationals is such a number that "cannot be represented as the ratio of two integers." The Sanskrit term for the Surd is ' *Karaṇi*.' It is defined as the square root of a number whose root cannot be obtained exactly. But the original meaning of the term *Karaṇi* seems to have been "the cord used for measuring a square in those olden days;" then it came to denote the side of a square. Finally, but still at the same time of the *Sulba-sūtras*, it acquired the significance which it has at present.†

On the other hand, the comparison with the Arabic terms shows a state of affairs just the reverse. Al-Khowārizmī spoke of Surds‡ as "inaudible" and of rational numbers as "audible." These terms have got no parallel amongst the Greeks and it appears at the first sight that they have got no connection with the Hindu terms too. I have no doubt that these two terms are due to the ingenuity of Al-Khowārizmī. But a question arises what led Al-Khowārizmī to create a new term for Surd that conveys an idea altogether different from those of the Hindus and the Greeks, although it is definitely known that the Arabs learnt much of Surd from their Hindu teachers. A moment's reflection would

* See post.

† B. Datta, "The Hindu Contribution to Mathematics," Bull. Math. Assoc. Allahabad, Vols. I & II (1927-29), p. 31.

‡ Smith, II, p. 252.

make it clear that the basis of his terms were however the Hindu term "*Karaṇī*." I would better like to go to the length of saying that the poor foreigner even heard the term "*Karaṇī*" but what perplexed him is another term that sounds almost the same as *Karaṇī* and which is particularly associated with Surd. This term is the *Karṇa*, that corresponds to the modern hypotenuse. This confusion vexed him much—he asked within himself "why the use of the term *Karṇa* should be extended only to the use of irrational numbers although its numerical value may be rational as well?" This defect of him he cured by his own ingenuity. Having found that the numerical value of some hypotenuse can be exactly determined while of others it cannot be and having found that the numerical value of a hypotenuse is generally found out by extracting the square root of a number that is equal to the square of the numerical value of the hypotenuse, he classified the *Karṇas* into good and bad, so far as they are concerned with the extraction of square roots. Then by an extension of the idea to the ear, *i.e.*, the *Karṇa*, he called the good one, *i.e.*, whose root can be exactly determined as "audible" and the bad one, *i.e.*, whose root cannot be exactly determined as "inaudible." The Arabs and the Hebrews often called Surds "non-expressible numbers."* This idea also seems to have been taken from the Hindus. The distinctive feature of the Hindu mathematical works is that the roots which are definite are treated in the Arithmetical works and those which are indefinite are treated in their works on Algebra. This classification is seen in Brahmagupta and Bhaskara. Now, the Hindus called Arithmetic as "*Vyakṭaganita*," *i.e.*, known and definitely determinate and Algebra as "*Avyakṭaganita*," *i.e.*, unknown and indefinite. It therefore seems to be highly probable that the Arabs got the ideas of their terms from the Hindus. It is thus manifest that the Europeans were also indirectly indebted to the Hindus for the terms "Surd" "inexpressible side." For it is clear that the term Surd which means deaf was taken from the Arabic "inaudible" and the "inexpressible side" from the Arabic

* Smith, II, pp. 252-3.

“ non-expressible number ” when the Arabic culture penetrated into Europe.

The later Hindu writers were more explicit as to what constitutes a Surd. In fact this had been a point of much discussion everywhere and Smith points out there has never been a general agreement. Beha Eddin (c. 1600), Al-Kharkī (c. 1020) and other Arab writers included only non-squares not divisible by the digits 2, 3,.....9. They even did not include $\sqrt{6}$, since $\sqrt{6} = \sqrt{2} \times \sqrt{3}$ and even in the 19th century Chrystal says that “..... a Surd number is the incommensurable root of a commensurable number.”* But Kṛishṇa, a commentator of Bhāskara, has given a very clear exposition. He says that a Surd is “ not generally any number which does not yield an integer root : for were it so, every such number (as 2, 3, 5, 6, etc.) must be constantly treated as irrationals. It only becomes a Surd when its root is required, that is when the business is with its root, not with the number itself.”†

Rationalisation, Addition and Multiplication.

As early as the period of the *Sulba-sūtras* the Hindus knew the rationalisation, addition and multiplication of elementary Surds. The face, base and altitude of a certain altar of the shape of an isosceles trapezium has been noted as

$$24/\sqrt{3} \text{ or } 8\sqrt{3} ; 30/\sqrt{3} \text{ or } 10\sqrt{3} \text{ and } 36/\sqrt{3} \text{ or } 12\sqrt{3}.$$

Thus we see that they knew that

$$24/\sqrt{3} = 8\sqrt{3}, 30/\sqrt{3} = 10\sqrt{3} \text{ and } 36/\sqrt{3} = 12\sqrt{3}. \quad (\dagger)$$

* Smith, II, 253, fn. 2.

† Colebrook, *Algebra with Arithmetic and Mensuration from the Sanskrit of Brahma Gupta and Bhāskara*, Lond., 1817, p. 145, fn. 1, to be hereafter called *Hindu Algebra*.

‡ The references are respectively to *Āp. Śl. Sū.* i, 5, ii, 2, ii, 3, ix, 5, xx, 1.

The area of the above trapezium is stated to be 324. Assuming that it was calculated by the rules given in the *Sulba-sūtras* for the purpose, we find that they solved

$$\sqrt{\frac{36}{3}} \times \frac{1}{2} \left(\sqrt{\frac{24}{3}} + \sqrt{\frac{30}{3}} \right)$$

to be equal to

$$\frac{36}{3} \times \frac{54}{2} = 324.$$

or $12\sqrt{3} \times \frac{1}{2} (8\sqrt{3} + 10\sqrt{3})$ to be equal to $12 \times 3 \times 9 = 324$.

Or it may be that they solved by both the methods. In any case it is proved that they knew the addition and multiplication of Surds.* This is another clear instance of the fact that the Hindu treatment of Surds was purely arithmetical unlike that of the Greeks which was geometrical.

Methods of finding the Approximate Value of Surds.

The general method by which the authors of the *Sulba-sūtras* would extract the root of Surds is as follows :—

They would first of all find the nearest root ($\text{root}^2 < \text{number}$). Then they would add some fraction to it. The fraction to start with, as it is spontaneously suggested, is $\frac{1}{2}$. With $\frac{1}{2}$ the root was squared. If this is less than the number the fraction $\frac{1}{2}$ was increased and went on in the process till the square of the nearest root with a fraction gives the number approximately. If with $\frac{1}{2}$, the square is too great, the fraction was decreased and the process was carried on likewise.

Now the question arises what was the order of increasing and decreasing the fraction $\frac{1}{2}$. I venture to suggest that they had two lists—one may be said to be the increasing list and the other one the decreasing list. These lists were derived thus :—

Increase the numerator of fractions $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \dots$ up to $\frac{1}{10}$

* To appreciate the correctness of the interpretation it should be remembered that *dvikaraṇi* = $\sqrt{2}$, *trikaraṇi* = $\sqrt{3}$, *tritīyakaraṇi* = $\sqrt{1/3}$, *saptam karaṇi* = $\sqrt{1/7}$ and so on.

by adding 1, 2, 3, etc., gradually and in each case stop till the numerator is such that if one is added to it, the fraction will become 1 in value. In figure it may be represented as :—

$$\frac{1}{2},$$

$$\frac{1}{3}, \frac{2}{3},$$

$$\frac{1}{4}, \frac{2}{4}, \frac{3}{4},$$

$$\frac{1}{5}, \frac{2}{5}, \frac{3}{5}, \frac{4}{5},$$

$$\frac{1}{6}, \frac{2}{6}, \frac{3}{6}, \frac{4}{6}, \frac{5}{6},$$

$$\frac{1}{7}, \frac{2}{7}, \frac{3}{7}, \frac{4}{7}, \frac{5}{7}, \frac{6}{7},$$

$$\frac{1}{8}, \frac{2}{8}, \frac{3}{8}, \frac{4}{8}, \frac{5}{8}, \frac{6}{8}, \frac{7}{8},$$

$$\frac{1}{9}, \frac{2}{9}, \frac{3}{9}, \frac{4}{9}, \frac{5}{9}, \frac{6}{9}, \frac{7}{9}, \frac{8}{9}.$$

$$\frac{1}{10}, \frac{2}{10}, \frac{3}{10}, \frac{4}{10}, \frac{5}{10}, \frac{6}{10}, \frac{7}{10}, \frac{8}{10}, \frac{9}{10}, \dots$$

These fractions can be classified into two groups—one group being more than and the other being less than $\frac{1}{2}$ in value. Arranging each group according to the order of magnitude, in increasing order in the case of fractions more than $\frac{1}{2}$ and in decreasing order in the case of fractions less than $\frac{1}{2}$, the two lists were prepared. These lists will be :—

Increasing list... $\frac{5}{9}, \frac{4}{7}, \frac{3}{5}, \frac{5}{8}, \frac{2}{3}, \frac{7}{10}, \frac{5}{7}, \frac{7}{9}, \frac{3}{4}, \frac{4}{5}, \frac{6}{9}, \frac{7}{8}, \frac{8}{9}, \frac{9}{10}.$

Decreasing list... $\frac{4}{3}, \frac{3}{2}, \frac{2}{3}, \frac{3}{4}, \frac{1}{3}, \frac{3}{10}, \frac{2}{4}, \frac{1}{2}, \frac{2}{5}, \frac{1}{4}, \frac{1}{3}, \frac{1}{5}, \frac{1}{6}, \frac{1}{7}, \frac{1}{8}, \frac{1}{9}, \frac{1}{10}.$

It should be noted here that if we consider more fractions with denominator more than 10, more values will intervene in the lists and in this way infinite values may come in. For this reason,

they put a limit to the fractions and this limit was when denominator is 10. According to this, therefore, the maximum fraction is $\frac{9}{10}$. If by taking this the square is too less, the direction was to take 1.

That the above process was actually followed in practice is also clearly seen from the fact that all the values of Surds given in the *Sulba-sūtras* except

$$\sqrt{2} = 1 + \frac{1}{3} + \frac{1}{3.4} - \frac{1}{3.4.34} \quad \text{for which there}$$

was a distinct method,* can be derived from the above process. Our hypothesis is further corroborated by the fact that all the values can neither be obtained by the method of continued fraction or by the use of any formula, although cases of strange coincidence happen in one or two cases.†

Let us now proceed to verify this. But before doing that let us see what right-angled triangles they have used so that we may ascertain what values for what Surds they have taken :—

	Rt. \triangle used.	Surd.	Value.
1.	5, 6, $7\frac{5}{6}$	$\sqrt{61}$	$7\frac{5}{6}$.
2.	4, 4, $5\frac{2}{3}$	$\sqrt{32}$	$5\frac{2}{3}$.
3.	40, 40, 56†	$\sqrt{2}$	56
4.	36, 99, 97	$\sqrt{9396}$	97.

Verification.

(1) The whole number root that can be the greatest within 61 is 7. Then $7\frac{1}{2}$ was added. $(7\frac{1}{2})^2$ was found to be $56\frac{1}{4}$. Then,

* See *post*.

† See *post*.

† The rt. \triangle solved was 1, 1 and $1\frac{2}{3}$ and then multiplied by 40. It then came to 40, 40 and 56.

successively taking the values according to the order of magnitude of the increasing list they found that

$$\left(7\frac{4}{5}\right)^2 = 60\frac{21}{25} \text{ and } \left(7\frac{5}{6}\right)^2 = 61\frac{13}{36}.$$

They therefore took $\sqrt{61} = 7\frac{5}{6}$. This root is taken by excess.

(2) To extract $\sqrt{32}$, the whole number root that can be greatest within 32 is 5. Then $5\frac{1}{2}$ was squared and it was found to be $30\frac{1}{4}$. They therefore followed the increasing list. Working up to $\frac{5}{8}$ it was found that $(5\frac{5}{8})^2 = 31\frac{15}{4}$ and up to $\frac{2}{3}$ it was found that $(5\frac{2}{3})^2 = 32\frac{1}{3}$. It is therefore clear why $\sqrt{32}$ was taken as $5\frac{2}{3}$. This root is taken by excess.

(3) In this case if the sides are taken 40, $\sqrt{3200}$ is to be solved. This does not give 56. If the sides are taken as 4 and then multiplied by 10 we do not get 56. It seems therefore that they did not take up the above sides. If however side 1 is taken $\sqrt{2}$ gives $1\frac{2}{5}$. But this is by defect whereas the values in other cases are taken by excess. The reason for taking this value by defect is to get the whole number 56 by multiplying by 40. To extract $\sqrt{2}$, the greatest whole number root that can be taken within 2 is 1. Then the following squares were found out:—

$$(1\frac{1}{4})^2 = 2\frac{1}{4}; (1\frac{1}{3})^2 = (1\frac{2}{3})^2 = 2\frac{4}{9}; (1\frac{1}{2})^2 = (1\frac{2}{3})^2 = 2\frac{4}{9}; (1\frac{2}{5})^2 = (1\frac{3}{5})^2 = 2\frac{9}{5}. \text{ It is thus clear why } \frac{2}{5} \text{ was chosen}$$

(4) To extract $\sqrt{9396}$. The whole number root that can be greatest within 9396 is 96. By following the method they found that $(96\frac{1}{2})^2 = 9312\frac{1}{4}$, $(96\frac{2}{3})^2 = 9344\frac{4}{9}$, $(96\frac{9}{10})^2 = 9389\frac{81}{100}$. In this case $\frac{9}{10}$ being too small the next number taken was 1. Here is the verification of my suggestion that they did not consider fractions with denominator more than 10 in preparing the lists.

Some other values of $\sqrt{2}$ and $\sqrt{5}$ can be derived from the rules laid down for the determination of the three *agnis*. I doubt whether they represent the true values derived by the authors themselves. On analysing the rules it is seen that to find $\sqrt{2}$ and $\sqrt{5}$

we must start by accepting that the ratio of AD and GD (see the figure before) are accurate. But the authors started by finding the values of $\sqrt{2}$ and $\sqrt{5}$ and then found their ratios which for practical purposes were taken as integers separately.

We will now proceed to show how the value

$$\sqrt{2} = 1 + \frac{1}{3} + \frac{1}{3 \cdot 4} - \frac{1}{3 \cdot 4 \cdot 34}$$

“ *iti Saviśeṣa* ” was found out. Two suggestions were before made as to the probable method of finding the above value the first one by Dr. Thibaut in 1875 and the other by Rodet in 1899. *Thibaut's hypothesis*.*

Endeavouring to discover a square the side and diagonal of which might be expressed in integral numbers they began by assuming two as the measure of a square's side. Squaring two and doubling the result they got the square of the diagonal, in this case eight. They then tried to arrange eight, let us say again eight pebbles, in a square; as we should they tried to extract the square root of eight. Being unsuccessful in this attempt, they tried the next number taking three for the side of a square, but eighteen yielded a square root no more than eight had done. They proceeded in consequence to four, five, etc. Undoubtedly they arrived soon at the conclusion that they would never find exactly what they wanted, and had to be contented with an approximation. The object was now to single out a case in which the number expressing the square of the diagonal approached as closely as possible to a real square number. I subjoin a list, in which the numbers in the first column express the sides of the squares which they subsequently tried, those in the second column the square of the diagonal, those in the third the nearest square number.

* The excuse for the lengthy quotation is for the sake of comparison with my suggestion. J.A.S.B., xliv, p. 238 (1875).

1	2	1	11	242	256
2	8	9	12	288	289
3	18	16	13	338	324
4	32	36	14	392	400
5	50	49	15	450	441
6	72	64	16	512	529
7	98	100	17	578	576
8	128	121	18	648	625
9	162	169	19	722	729
10	200	196	20	800	784

How far the Sutrakāras went in their experiments we are of course unable to say; the list up to twenty suffices for our purposes. Three cases occur in which the number expressing the square of the diagonal of a square differs only by one from a square number; 8-9, 50-49 and 288-289, the last case being most favourable as it involves the largest numbers. The diagonal of a square, the side of which was equal to twelve, was very little shorter than seventeen ($\sqrt{289} = 17$). Would it then not be possible to reduce 17 in such a way as to render the square of the reduced number equal or almost equal to 288?

Suppose they drew a square the side of which was 17 padas long and divided it into $17 \times 17 = 289$ small squares. If the side of the square could now be shortened by so much that its area would contain not 289 but only 288 such small squares, then the measure of the side would be exact measure of the diagonal of the square, the side of which is equal to 12 ($12^2 + 12^2 = 288$). When the side of the square is shortened a little, the consequence is that two sides of the square, a strip is cut off; therefore a piece of that length had to be cut off from the side that the area of the two strips would be equal to one of the 289 small squares. Now, as the square is composed of 17×17 small squares, one of the two strips cut off a part of 17 small squares and the other likewise of 17, both together of 34 and since these 34 cut-off pieces are to be equal to one another of the squares, the length of the piece to be

cut off the side is fixed thereby ; it must be the thirty-fourth part of the side of one of the 289 small squares.

The thirty-fourth part of thirty-four small squares being cut off, one whole small square would be cut off and the area of the large square reduced exactly to 288 small squares, if it were not for one unavoidable circumstance. The two strips which are cut off from two sides of the square, let us say the east side and the south side, intersect or overlap each other in the south-east corner and the consequence is that from the small square in the corner not $\frac{2}{34}$ is cut off, but only $\frac{2}{34} - \frac{1}{34 \times 34}$. Thence the error in the determination of the “ *saviṣeṣa*.” When the side of a square is reduced from 17 to $16\frac{33}{34}$ the area of the square of that reduced

side was not 288, but $288 + \frac{1}{34 \times 34}$. Or putting it in a different way : taking 12 for the side of a square, dividing each of the 12 parts into 34 parts (altogether 408) and dividing the square into corresponding small squares, we get $408 \times 408 = 166464$. This doubled is 332928. Then taking the “ *saviṣeṣa* ” value of $16\frac{33}{34}$ for the diagonal and dividing the square of the diagonal into small squares just described, we get $577 \times 577 = 332929$ such small squares. This difference is slight enough.

The relation of $16\frac{33}{34}$ to 12 was finally generalised into the rule : Increase a measure by its third, this third by its own fourth less the thirty-fourth of this fourth

$$\left(16\frac{33}{34} - 12 + \frac{12}{3} + \frac{12}{3 \times 4} - \frac{12}{3 \times 4 \times 34} \right).$$

The example of the “ *saviṣeṣa* ” given by commentators is indeed $16\frac{33}{34} : 12$; the case recommended itself by being the first in which the third part of a number and the fourth part of the third part were both whole numbers.

Rodet's Suggestion.

Rodet* holds that a process of approximation to the value of a Surd was known to the authors of the *Sulba-sūtras*.

$$\sqrt{a^2+r} = a + \frac{r}{2a+1} + \frac{\frac{r}{2a+1} \left(1 - \frac{r}{2a+1}\right)}{2 \left(a + \frac{r}{2a+1}\right)} + \epsilon \quad \text{where}$$

$$\epsilon = \left\{ r - \frac{r}{2a+1} + \frac{\frac{r}{2a+1} \left(1 - \frac{r}{2a+1}\right)}{2 \left(a + \frac{r}{2a+1}\right)} \right\} 2a + \frac{r}{2a+1}$$

$$+ \frac{\frac{r}{2a+1} \left(1 - \frac{r}{2a+1}\right)}{2 \left(a + \frac{r}{2a+1}\right)} \Bigg\} \div 2 \left\{ a + \frac{r}{2a+1} + \frac{\frac{r}{2a+1} \left(1 - \frac{r}{2a+1}\right)}{2 \left(a + \frac{r}{2a+1}\right)} \right\}.$$

This is an approximation of the 4th order. Putting $a=1$, $r=1$,

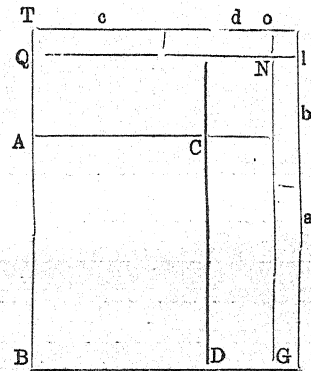
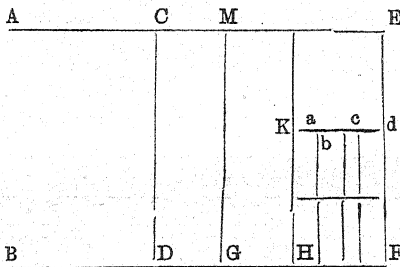
$$\text{we get } \sqrt{2} = 1 + \frac{1}{3} + \frac{1}{3.4} - \frac{1}{3.4.34}.$$

I decline to believe that either of the suggestions represent the actual state of affairs. As to Rodet's hypothesis it seems to be a very big supposition for these infants of science. Moreover if they knew this general formula they ought to have got more accurate results for the other Surds. And again the general rule does not appear in any of the vast literatures of the Hindus. Not to speak of the whole expression even to the third order it is not available. As to Thibaut's suggestion it may be admitted that his suspicion that it was derived by some geometrical devise is legitimate, but it does not seem that the geometrical devise was exactly the same as was suggested by him. The very method of putting the result $1 + \frac{1}{3} + \frac{1}{3.4} - \frac{1}{3.4.34}$ suggests that it was operated in

* Rodet. *For une méthode d'approximation des racines Carrés connue dans l'Inde antérieurement à la conquête d'Alexandra*. Bull. Soc. Math. d. France, vii (1879), pp. 98-102.
Sur les méthodes d'approximation chez les anciens. Ibid, pp. 156-167.

four steps and the result arrived at the first step was 1, at the second $1/3$, at the third $1/3.4$ and at the fourth $1/3.4.34$ or in other words it suggests that at first the length was taken as one; it was then increased by $1/3$ and then by $\frac{1}{4}$ of $1/3$ and finally it was reduced by $1/34$ of $1/3$ of $\frac{1}{4}$. Thibaut's method does not consist of four steps and it does not show how step by step the result $1, 1/3, 1/3.4$ and $1/3.4.34$ were obtained.

These conditions are however satisfied if we proceed in the following way :—(The method is explained with reference to the figure.)



Take a rectangle AF having sides 2 and 1 so that the area is 2. Divide the rectangle into two squares AD and CF. Take off AD and place it separately. Then we have a square whose side is $BD=1$. Divide CF into three equal parts, so that $DG=GH=HF=BD$ and HE into three equal parts so that $Ed=\frac{1}{3}EF=\frac{1}{3}BD=DG=GH=HF$. Take off CG and attach it by the side CD of the square placed separately. Similarly MH is taken off to be placed in the position of QC and EK is taken off to be placed in the position CN. We have therefore a square the side of which is $1+1/3$. But still an area as great as KF remains to make the square of BG equal to 2. KH is found to be half of NG. Therefore divide it into four equal parts so that $Ka=ab=bc=cd$ $\frac{1}{4}$ of $\frac{1}{3}$. Each of the four strips is placed by the side of the square BN in the position as shown in the figure. We have thus a

square whose side is $1 + \frac{1}{3} + \frac{1}{3.4}$. But here the area is more than 2 by the portion marked, *i.e.*, OL, *i.e.*, by $1/144$ square units. We are therefore to reduce the length so that the area of the new square may be equal to 2. To do this they proceeded to cut off a strip from each side so that both together may be equal to $1/144$ square units, *i.e.*, from each side $1/288$ is to be cut off. Now the length is

$$1 + \frac{1}{3} + \frac{1}{3.4} = \frac{17}{12}.$$

\therefore If x be the breadth of the strip, then $\frac{17}{12}x = \frac{1}{288}$

$$\therefore x = \frac{1}{17.12.2} = \frac{1}{3.4.34}.$$

But even by this the area remains greater and the reason is apparent. Hence the use of ‘*saviśeṣa*.’

That the method I have just suggested is very probably the method actually followed by the authors of the *Sulba-sūtras* is manifested not only by its simplicity and by its satisfying the condition mentioned before. It has got a link with the past and the future. Nay it originated in the womb of the very crude method I have suggested before and led to the formulation of the rule $\sqrt{A} = \sqrt{a^2 + \epsilon} = a + \frac{\epsilon}{2a}$ which comes chronologically just after the method. This formula is given by implications by the Jaina canon writers* who were at least the immediate followers of the authors of the *Sulba-sūtras*, if not contemporaries. In fact we do not meet with any approximation rule or any value given

* See Dr. Datta's “*Jaina School of Mathematics*,” Bull. Cal. Math. Soc., Vol. XXI, 1929, p. 132. He came to the conclusion by working out the Surds found in Jaina canons mentioned before. $\sqrt{A} = a + \epsilon/2a$ is always an approximation by excess. But in some cases mentioned before we find that there is an accompanying epithet “and a little over” which go to show that the Jaina authors knew their values as defective. But in some other cases the epithet is “and a little less.” How then all are derived from $\sqrt{A} = a + \epsilon/2a$ may be asked. The reason is that the Jainas used to state a large number including fractions in round numbers by replacing the fraction by 1 if it is greater than $\frac{1}{2}$ and neglected $\frac{1}{2}$ when it is less than $\frac{1}{2}$.

from which the existence of a rule can be inferred between the periods the values

$$\sqrt{2}=1+\frac{1}{3} + \frac{1}{3.4} - \frac{1}{3.4.34} \text{ and } \sqrt{A}=a+\frac{e}{2a} \text{ are given.}$$

How then has it got a link with the crude method? The selection of the fraction $1/3$ after 1 is significant in this respect, for which, as well, may a question be raised "what led the authors to take $1/3$, which we do not get by following the method of

taking the difference of $(b + \frac{a-b}{2})$ and $\frac{(a-b)^2}{2}$ to turn a rectangle

into a square as given in the *Sulba-sūtras*.' The answer is this : The nearest root being found to be 1, they went on adding fractions to 1 according to the crude method suggested and soon found that by adding $\frac{1}{2}$ it becomes too great and by adding $1/3$ or $2/5$ it becomes less. Of the $1/3$ and $2/5$, although $2/5$ is more approximate still $1/3$ was selected for it is a better number suited for division of figures or it may be that they tried with both the numbers and soon discovered that by taking $1/3$ we can arrive at a simple method ; rather we can arrive at a method at all.

We will now proceed to show how the method gave rise to the formula $\sqrt{A}=a+e/2a$. Once the principle was established for $\sqrt{2}$, attempts were being made to apply it in extracting other Surds say $\sqrt{32}$, $\sqrt{66}$, $\sqrt{83}$, $\sqrt{103}$ and so on. Thus the method followed in the case of :—

- (1) $\sqrt{32}$. The greatest root within 32 is 5. Therefore they drew a square on side 5. The remaining 7 squares formed a rectangle of $1 \times 7 = 7$ square units. Now to divide this rectangle into two equal parts so as to attach one on each of the two sides of the new square, breadth of each part must be

$$2.5.x=7 \quad \therefore x = \frac{7}{2.5}.$$

- (2) $\sqrt{66}$. The greatest root within 66 is 8. Therefore they drew a square on side 8. The remaining 2 squares formed a rectangle of $1 \times 2 = 2$ square units. Now to divide this rectangle into two equal parts so as to attach one on each of the two sides of the new square, breadth of each part must be

$$2.8.x=2 \therefore x = \frac{2}{2.8}.$$

- (3) $\sqrt{83}$. The greatest root within 83 is 9. Therefore they drew a square on side 9. The remaining two squares formed a rectangle of $1 \times 2 = 2$ square units. Now, to divide this rectangle into two equal parts so as to attach one on each of the two sides of the new square, breadth of each part must be

$$2.9.x=2 \therefore x=2/2.9.$$

- (4) $\sqrt{103}$. The greatest root within 103 is 10. Therefore they drew a square on side 10. The remaining 3 squares formed a rectangle of $1 \times 3 = 3$ square units. Now to divide this rectangle into two parts so as to attach one on each of the two sides of the square, breadth of each part must be $2.10.x=3 \therefore x=3/2.10$.

Now, we find that in all these cases, the principle followed was that at first the nearest square root was taken and then a fraction is added which is equal to

$$\frac{\text{given number} - \text{sq. of the greatest root within the number}}{\text{twice the greatest root.}}$$

or symbolically $\frac{\epsilon}{2a}$ where $\epsilon = \text{given number minus the square of the greatest root.}$

and $a = \text{the greatest root.}$

We therefore find that by following the above method, the rule for approximation up to the second order was deduced. This

formula was hitherto known to have been given by Heron of Alexandria (c. 200). But it is distinctly a Hindu contribution to mathematics shown by priority of appearance as well as by deduction from earlier Hindu method.

The application of the principle of the method suggested does not end here. In later times when the unknown author of the *Bākshālī MS.* wanted for closer work a more approximate

value, he deducted $\frac{\left(\frac{\epsilon}{2a}\right)^2}{2\left(a + \frac{\epsilon}{2a}\right)}$ from $a + \frac{\epsilon}{2a}$ * and here too the principle of the method was followed. In the last stage of operation of the suggested method when it was found that the value $\left(\frac{17}{12}\right)^2$ was greater than 2, two strips were cut off from the two sides so that their area may be equal to 1/144.† Here too as it was found that $a + \frac{\epsilon}{2a}$ was greater than the real value two strips were required to be cut off and following the principle we find that it is

$$\left(\frac{\epsilon}{2a}\right)^2 = 2\left(a + \frac{\epsilon}{2a}\right) \cdot x \text{ whence } x = \frac{\left(\frac{\epsilon}{2a}\right)^2}{2\left(a + \frac{\epsilon}{2a}\right)}.$$

$$\text{Hence the formula } \sqrt{A} = a + \frac{\epsilon}{2a} - \frac{\left(\frac{\epsilon}{2a}\right)^2}{2\left(a + \frac{\epsilon}{2a}\right)}.$$

That our suggestion is right is also clearly seen from the statement of the rule in *Bākshālī MS.* In case of a non-square number subtract the nearest square number [corresponds to ϵ], divide the remainder by twice (the root of that number). [This corresponds to dividing by twice the length of the first square.] Half the square of that (that is the fraction) is divided by the sum of the root and the fraction and subtract. [This corresponds to

* *The Bākshālī Mathematics*, Dr. B. Datta, Bull. Cal. Math. Soc., XX., 1929, p. 11.

† $(17/12)^2 - 2 = 1/144$.

taking away $\frac{1}{2}$ of the extra area taken from each side by cutting off a strip. Division by the sum means division by the side of the new square.] This will be the approximate value less the square for the last term (for the value is in excess of the real by the square of the last term). It is also possible that the first approximation formula was deduced from the general method of transforming a rectangle into a square as given in the *Sulba-sūtras* : " In order to turn an oblong into a square, take the breadth of the oblong for the side of the square; divide the rest of the oblong into two parts and inverting their places join those two parts to two sides of the square. Fill the empty space with an added piece."*

By way of confirmation, it may be pointed out, that the principle of deducting strips to decrease a square, attributed to the authors of the *Sulba-sūtras* is not the assumption of an element unknown to them, viz., adding strips to increase a square. In later times we find that Brahmagupta knew two rules :—

$$\sqrt{A} = a + \frac{\epsilon}{2a} \quad \dagger$$

$$\sqrt{A} = a \pm \frac{\epsilon}{2a \pm \frac{\epsilon}{2a}} \quad \ddagger$$

The origin of the second rule seems to be this :—In deducing the formula $\sqrt{A} = a + \frac{\epsilon}{2a}$ we always took an excess portion $x^2 = \left(\frac{\epsilon}{2a}\right)^2$.

Hence instead of taking $2a \cdot \epsilon = \epsilon$

we should take $(2a + x) \cdot x = \epsilon$ when $x = \frac{\epsilon}{2a + x}$

* G. Thibaut, " *On the Sulba-sūtras*," J.B.A.S., 1875, p. 19, Reprint.

† Rodet, *Leçons de Calcul d'Āryabhaṭa; Brāhma-sphuṭa-siddhānta* xii. 7, 62. Compare also J. Tropfke, *Geschichte der Elementar Mathematik*, Berlin, 1921, Vol. II, p. 138.

‡ P. C. Sengupta, " *The Āryabhaṭīyam*," Journal of the Dept. of Letters, Vol. XVI, p. 14.

and then putting $x = \epsilon/2a$ we have the formula $= x \frac{\epsilon}{2a + \frac{\epsilon}{2a}}$

whence $\sqrt{A} = a + \frac{\epsilon}{2a + \frac{\epsilon}{2a}}$

The use of another formula $\sqrt{A} = a + \frac{\epsilon}{2a+1}$ by Brahmagupta is

also inferred from Al-Biruni's statement that the value of $\pi = 3 \frac{1}{7}$

was known to him. This value of $\pi = 3 \frac{1}{7}$ can be deduced from

$\sqrt{10}$ by the application of the rule. Dr. Datta doubted that the value was probably not known to Brahmagupta. He however maintains that it may have been known to them in the 8th century. In the 10th century we however find it clearly stated in the *Aryasiddhānta*.*

The origin of this form is also clear. We find that in the formula $\sqrt{A} = a + \frac{\epsilon}{2a + \frac{\epsilon}{2a}}$ is used instead of $\frac{\epsilon}{2a}$ or $\epsilon/2a = 1$.

This is however true that the maximum value of $\epsilon/2a$ is always 1. Let us examine the case by taking some of the numbers just one less than a perfect square. These numbers are 3, 8, 15, 24, 35 and so on. Only in these cases $\epsilon/2a$ can have a maximum value for ϵ is maximum in all these cases. Now, $\epsilon/2a$ in the case of

3 is $2/2.1 = 1$
 8 is $4/2.2 = 1$
 15 is $6/2.3 = 1$
 24 is $8/2.4 = 1$
 35 is $10/2.5 = 1$ and so on.

We therefore see how $\epsilon/2a$ was taken as 1 roughly.

* *Hindu Values of π* , J.A.S.B. (New Series), Vol. XXII, 1926, No. 1, pp. 29-30.

Let us revert back for a short while to the crude old method to see whether the values of the Surds given in the *Sulba-sūtra* can be deduced from the formulas, in the way of confirming that my suggestion is right. Some remarkable cases of coincidence may occur, but there are cases which cannot be derived by any of the rules given above. For instance $\sqrt{61} = 7\frac{5}{6}$ is not derivable from any of the four formulas mentioned before. In the same way $\sqrt{2} = 7/5$ cannot be derived.

The striking coincidence of the value $7/5$ with the third convergent, of the value $17/12$ derived from $\sqrt{32} = 5\frac{2}{3}$ with the fourth convergent, the value $507/408$ with the 8th convergent seem to suggest the idea that the rudiments of continued fraction were known to them. Some support is also lent to it by the fact that $7/5$ is not derivable from the series given. But the question is if they knew the method of continued fraction why did they not derive the other values by that. Again if we are to believe that $17/12$ was first obtained by extracting $\sqrt{2}$ by the method of continued fraction and then it was converted to the side of 4, why not believe that it was derived from the formula

$$\sqrt{A} = a + \frac{\epsilon}{2a} - \frac{\left(\frac{\epsilon}{2a}\right)^2}{2\left(a + \frac{\epsilon}{2a}\right)} ?$$

All these queries are however, at an end if we believe that they obtained all the values by the crude method suggested. I believe, therefore, that this firmly confirms my hypothesis.

When we revert, we find that Śridhara (c. 750 A.D.) dictated another rule: "Multiply the quantity whose square root cannot be found out by any large square number, take the square root of the product leaving out of account the remainder. Divide it by the square root of that factors."* In later times Bhāskara

* *Trīśatikā* of Śridhara, Sudhākara's Ed.

applied it to fractions.* In still later times we find that Jñana Rāja (1503 A.D.) gave another rule which can be traced to this method. His rule was "The root of a near square with the quotient of the proposed square divided by that approximate root, being halved, the moiety is a (more nearly) approximated root, and repeating the operation as often as necessary, the nearly exact root is found."†

$$\text{Or symbolically } \sqrt{A} = \sqrt{a^2 + r} = \frac{a + \frac{A}{a}}{2}.$$

This rule is however the very same as $\sqrt{A} = a + \frac{e}{2a}$ put in another form. Rather this rule is more akin to the method by which the approximation rules were found out. We have already suggested that the method by which the rules were found out and have also pointed out that the suggestion is confirmed by the statement of the Bākshālī MS. If we take out that part of the above statement by which the approximation up to the second order can be worked out, it comes to :—"In case of a non-square number, subtract the nearest square number, divide the remainder by twice the root of that number." This together with the nearest root gives the approximate root.

$$\text{Or } \sqrt{A} = a + \frac{A - a^2}{2a} = \frac{2a^2 + A - a^2}{2a} = \frac{a^2 + A}{2a} = \frac{a}{2} + \frac{A}{2a} = \frac{1}{2} \left(a + \frac{A}{a} \right).$$

The same formula may also be derived by taking means and exactly in this manner it was deduced by Heron of Alexandria. Of these two methods Jñana Rāja followed the second method as the part of his rule "and repeating the operation as often as necessary, the nearly exact root is found out" clearly indicates.

* *Āryabhaṭīyam*, P. C. Sengupta, *loc. cit.*, p. 14.

† *Ibid*, p. 15.

In later times we find that the Arabs borrowed these first three rules from the Hindus. Al-Haṣṣār (c. 1175?) made use of the following formulas :*

$$(1) \quad a + \epsilon/2a$$

$$(2) \quad a + \frac{\epsilon}{2a+1}$$

$$(3) \quad a + \frac{\epsilon}{2a} - \frac{\left(\frac{\epsilon}{2a}\right)^2}{2\left(a + \frac{\epsilon}{2a}\right)}$$

Kabdās (c. 1341), following an Arabic method† obtained a first approximation to $\sqrt{10}$ by using a rule equivalent to $\sqrt{A} = a + \frac{A-a^2}{2a}$

which is nothing but the rule $\sqrt{A} = \frac{a + \frac{A}{a}}{2}$ given by Jñāna Rāja.

Jñāna Rāja having flourished in a period when Arabic culture penetrated into India, it seems that he borrowed it from the Arabs.

Every available Hindu treatise on Algebra has a section to the fundamental arithmetical operations with Surds. Brahmagupta knew the following properties :‡

$$\frac{\sqrt{a} + \sqrt{b}}{\sqrt{c} + \sqrt{d}} = \frac{(\sqrt{a} + \sqrt{b})(\sqrt{c} - \sqrt{d})}{(\sqrt{c} + \sqrt{d})(\sqrt{c} - \sqrt{d})} = \frac{1}{c-d} (\sqrt{ac} + \sqrt{bc} - \sqrt{ad} - \sqrt{bd})$$

$$\sqrt{a} + \sqrt{b} = -\sqrt{\frac{a - \sqrt{a^2 - b}}{2}} + \sqrt{\frac{a + \sqrt{a^2 - b}}{2}}$$

$$\sqrt{a + \sqrt{b} + \sqrt{c} + \sqrt{d}} = \sqrt{\frac{a - \sqrt{a^2 - b - c}}{2}}$$

$$+ \sqrt{\frac{a + \sqrt{a^2 - b - c}}{4}} - \frac{1}{2} \sqrt{\left(\frac{a + \sqrt{a^2 - b - c}}{2}\right)^2 - d}$$

* Smith, II, p. 254, fn. 3.

† *Ibid*, p. 255.

‡ Dr. Datta's *Hindu Contribution to Mathematics*, p. 32.

$$+ \sqrt{\frac{a + \sqrt{a^2 - b - c}}{4}} + \frac{1}{2} \sqrt{\left(\frac{a + \sqrt{a^2 - b - c}}{2}\right)^2 - d}$$

and so on. He has worked out the example

$$\begin{aligned} & \sqrt{16 + \sqrt{120} + \sqrt{72} + \sqrt{60} + \sqrt{48} + \sqrt{40} + \sqrt{24}} \\ &= \sqrt{6} + \sqrt{5} + \sqrt{3} + \sqrt{2}. \end{aligned}$$

Bhāskara observed that the above method of finding the root has a limitation. He has therefore given a fuller treatment of the subject specially of finding the square root of a multinomial Surd. He has discussed how to test whether a given multinomial Surd has a root or not. He also points out that sometimes we shall have

$$\begin{aligned} & \sqrt{a + \sqrt{b} + \sqrt{c} + \sqrt{d}} = \sqrt{\frac{a + \sqrt{a^2 - b - c}}{2}} \\ & + \sqrt{\frac{a - \sqrt{a^2 - b - c}}{4}} - \frac{1}{2} \sqrt{\left(\frac{a - \sqrt{a^2 - b - c}}{2}\right)^2 - d} \\ & + \sqrt{\frac{a - \sqrt{a^2 - b - c}}{4}} + \frac{1}{2} \sqrt{\left(\frac{a - \sqrt{a^2 - b - c}}{2}\right)^2 - d}. \end{aligned}$$

In the foregoing pages I have made an impartial and fair attempt to investigate into the growth and development of Surd amongst the Hindus together with a comparison with those of the Arabs and Greeks just to see whether there was any interrelation amongst these people. The most important result of the enquiry, besides a fair estimation of the growth and development of the subject, are as follows :—

- (1) It is definitely disproved that the Hindu mathematicians after the *Sulba-sūtra* period was greatly influenced by Greek mathematics.
- (2) The nucleus of all the rules for approximations of Surds is in the *Sulba-sūtras*, from which they were deduced here in the soil of India.

(3) That this nucleus is the method by which

$$\sqrt{2} = 1 + 1/3 + 1/3.4 - 1/3.4.34 \text{ was found out.}$$

- (4) The methods of the *Sulba-sūtras* were very crude, unsystematic and suited to particular cases whereas in the later mathematical works we find simpler, systematic and general rules. This is the reason why the later mathematicians did not refer to the *Sulba-sūtras* and not because the later mathematics was influenced by the Greek mathematics.
- (5) The *Sulba-sūtras* and the later mathematical literatures are connected by the intervening literatures which keep records of the successive stages of growth and development.
- (6) The Arabs learnt Mathematics from the Hindus before they learnt from the Greeks.
- (7) The arithmetic of Surd is out and out a Hindu contribution to Mathematics.
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ON THE HINDU TREATMENT OF FRACTIONS

BY

GURUGOVINDA CHAKRAVARTI, M.A., B.Sc.

Introduction.

The earliest trace of Hindu interest in fractions is found in the R̥gveda, the first of the human documents of learning. It is in connection with debts—whether in connection with its interest or instalments paid, it is not certain—that we find the use of such fractions as $\frac{1}{8}$ and $\frac{1}{16}$. * Besides these there are other uses of fractions such as $\frac{1}{4}$ and $\frac{1}{12}$. They expressed these fractions by word symbols. Thus for instance the word used for $\frac{1}{8}$ is Śaf, $\frac{1}{16}$ is Kalā, $\frac{1}{4}$ is Pāda and $\frac{1}{12}$ is Kuṣṭa.†

It has been held by Mr. Smith in his authoritative work on the history of mathematics‡ that the world at first made an attempt to avoid fractions and in the course of this attempt they discovered the units of measure. But the documents of our soil do not vouch for it. In the Vedāṅga Jyotiṣa we find that $10 \frac{1}{20}$ kalās make a nāḍikā.§ In the Arthaśāstra of Kauṭilya we have $187\frac{1}{2}$ Palas = 1 Public Droṇa, $162\frac{1}{2}$ Palas = 1 Harem Droṇa.||

* Rv., VIII, 47, 17 = Av., 46.3.

† It would be interesting to trace the history of the use of these words to denote fractions. The word śaf means hooves and a cow has got eight hooves. It was in this way that śaf came to denote one-eighth. The word pāda was derived either from the four legs of the cow or from the four parts of a stanza. (A stanza in Sanskrit literature is divided into four parts from the Vedic times each of which is called a pāda.) The word kalā is taken from the crests of the moon. The moon has got sixteen parts (kalā or aṁśa) and each part is increased or decreased on every lunar day and hence the use. The derivation of the word kuṣṭa is not known.

‡ Smith, *History of Mathematics*, II, 1923, p. 208.

§ V. 38. कला दश सविंश नाडिका स्याद् ।

|| Tr. of Shamsastry (1915), p. 129.

However at this early stage, the general fraction was not fully developed and it appears from the available records that it cannot be traced to a period earlier than that of the Vedāṅga (1200 B.C.) where we find the use of only one general fraction $\frac{2}{3}$. * The use of $\frac{1}{2}$ is also found in the Śulba Sūtras.† But even then the instances are very rare. It is only from the time of the Jainas that we find recorded the use of large general fractions. The Sūryaprajñapti contains a number of examples.‡ The idea of improper and complex fractions appears for the first time in the Jaina canonical works where we get a number of

instances. $\frac{61}{2}$, $\frac{548}{61}$, $\frac{547}{61}$ are some of the instances of improper

fractions and $2\frac{42\frac{1}{2}}{183}$, $3\frac{46\frac{1}{2}}{183}$, $4\frac{51\frac{1}{2}}{183}$ are some of the instances of

complex fractions found in the Sūryaprajñapti.

Amongst other nations we find that the “essential feature of the early Egyptian treatment is the unit fraction. The arithmeticians had long been able to conceive of $\frac{1}{10}$ but they had no plural for it either verbally or mentally.”§§ “Even as late as the 10th Century Rabbi Saadia ben Joshep al-Fayyumī, a Hebrew writer living in Egypt, made much use of unit fractions in his computations relating to the division of inheritances.|||| Amongst the Babylonians the Cuneiform records of c. 2000 B.C.

* V. 39.

† Thibaut : “On the Śulba-sūtras,” J.A.S.B. (1875), Reprint, p. 28.

‡ A few examples are given from Sūtra 23;

$$9 \times 5251 \frac{29}{60}, 5251 \frac{47}{60} \times \frac{548}{61}, \frac{315125}{60} \times \frac{547}{61}.$$

§ Sūryaprajñapti, Sūtra 11.

|| and ¶ Ibid, Sūtra 23.

** दौ ज्योनाहं अद्दयलालीसते सीतसयभागे ।

†† तिन ज्योनाहं अद्दसीतालीसं च ते सीतयभागे ।

‡‡ चत्वारि ज्योनाहं अद्दवावन्नय ते सीतयभागे ।

§§ Smith : History of Maths., II, p. 210.

|||| Ibid, p. 212.

} Sūryaprajñapti, Sūtra 18.

include some special symbols for $\frac{3}{8}$, $\frac{1}{8}$, $\frac{1}{16}$ and $\frac{5}{7}$ and other cases of like difficulty only.* The Greeks always dealt with unit fractions.† The case was similar with the Romans.‡ Amongst the Chinese there occurs instances of operation with fractions, but as late as the latter half of the 6th Century A.D. Chang Ch'iu-Chien remarks in the preface of his "Arithmetical Classic" that "we are troubled with the hardships of considering fractions."§ It has therefore been rightly observed by Dr. B. Datta that the development of the general fractions was chiefly due to the Hindus.||

Difficulties in expressing Large Fractions—How avoided.

It is true when the general fraction was developed a new stage in the mathematics of fraction was inaugurated. But by this the primitive mathematics was not evolved out of its chaotic state. Need began gradually to be felt, for expressing larger and larger general fractions and in it a great difficulty presented itself before the early mathematicians, owing perhaps to the absence of a scientific system of notation. This they avoided by expressing a large fraction as sum of two or more other smaller fractions. Thus for instance :¶

$$\left(5251 \frac{47}{60} \right) \times \left(9 - \frac{1}{61} \right) = 47096 \frac{33}{60} + \frac{2}{60 \times 61}.$$

There are also some other instances in the same rule :—

$$47263 \frac{21}{60} \div 549 = 86 \frac{5}{60} + \frac{24}{61 \times 60}$$

* *Ibid*, p. 213.

† *Ibid*, p. 214.

‡ *Ibid*, pp. 214-15.

§ Mikami : *Development of Mathematics in China and Japan*, p. 39, to be hereafter called *China*.

¶ Dr. Bibhutibhushan Datta : *Hindu Contribution to Mathematics*. Reprint from *The Bulletin of the Mathematical Association, University of Allahabad*, Vols. I and II (1927-28), p. 21.

¶ *Sūryaprajñapti*, Rule 23. सौतासीसाह जीयन सदस्सेहिं कृत्तवतीचय जीयनेहि तत्तीसाएष सड भागेहिं जीयनस सडि भागं च एसदिधा क्त्वा दीहिं चन्निषा भागेहिं ।

$$\frac{18}{60} \times \frac{548}{61} = 2 + \frac{41}{60} + \frac{43}{60 \times 61}$$

The separations into partial fractions with unity as numerator for the purpose of expressing large fractions was never resorted to in India. There is not a single instance of this in our records. Mr. Kaye, although he was tended to believe that the knowledge of partial fractions was not certainly possessed by the composers of the Śulba Sūtras, could however trace one in those works. The instance he pointed out was *

$$a = d \left(1 - \frac{1}{8} + \frac{1}{8 \cdot 29} - \frac{1}{8 \cdot 29 \cdot 6} + \frac{1}{8 \cdot 29 \cdot 6 \cdot 8} \right)$$

which, he says, implies the use of partial fractions with unity as numerator. Herein he was misled, possibly by not consulting the original source. The rule in its original form was†

मण्डलं चतुरस्रं चिकीर्षन्विष्कम्भमष्टौ भागान् कृत्वा भागमेकीनत्रिंशद्वा
विभज्याष्टवि त्रिंशतिभागानुद्धरेद्भागस्य च षष्टमष्टमभागेनम् ।

This when put symbolically comes to

$$a = d - \frac{d}{8} + \frac{d}{8 \cdot 29} - \frac{d}{8 \cdot 29 \cdot 6} + \frac{d}{8 \cdot 29 \cdot 6 \cdot 8}$$

which certainly does not imply the use of partial fractions with unity as numerator. The common factor “*d*” was not removed by the authors of the Śulba Sūtras but by Dr. Thibaut in his essay “On the Śulba Sūtras” from whom Mr. Kaye evidently borrowed.

Approximate Value of Big Fractions.

It has recently been pointed out by Dr. Datta‡ that where by avoiding fractions and taking the nearest whole number no serious error was introduced into the calculations, the Jainas replaced the fractional part in a mixed number greater than half

* G. R. Kaye : *Indian Mathematics* (1915), pp. 7-8.

† Thibaut : “*On the Śulba-sūtras*,” *loc. cit.*, p. 27.

‡ Bibhutibhushan Datta : *Jaina Maths.*, *Bull. Cal. Math. Soc.*, XXI, pp. 132-33.

by one, and neglected when it was less than half which is substantially the modern process. This method of stating quantities with round numbers was made with the observation that the value is either a little more (kiñcidviśeṣādhika) or a little less (kiñcidviśeṣūna). For instance $315089 \frac{218078}{178}$ is expressed as 'a little over' 315089 and $318314 \frac{553478}{178}$ is expressed as 'a little less than' 318315.* Again $71 \frac{5}{11}$ is stated in whole numbers to be 18.†

Continued Fraction.

The three values $\frac{577}{408}$, $\frac{7}{5}$ and $\frac{17}{12}$ of $\sqrt{2}$ given in the Sulba Sūtras being the 8th, 3rd and 4th convergent when deduced by the method of continued fraction seem to suggest that the rudiments of continued fraction was known to them. These are however cases of mere accidental coincidence. All these values were derived by other methods and I have elsewhere‡ shown that it can be definitely said that the method of continued fraction was not known to the authors of Sulba Sūtras.

The earliest reference of continued fraction in our literature is found in the *Āryabhaṭīyam* (499 A.D.) when he laid down the rule for the solution of the indeterminate equation of the first degree which was based on the mutual division of a and b as in the process of finding the greatest common divisor, a process was used that was similar to that of converting a fraction into a continued fraction as is evident from the following: **

$$\frac{a}{b} = q_1 + \frac{1}{q_2 + \frac{1}{q_3 + \frac{1}{q_4} \dots \dots}}$$

* *Sūryaprajñāpati*, Rule 20.

† An ancient work *Karaṇabhāṣana* remarks सत्तरस ज्योनाहं अद्वितीयं च एगद्विभाग एहं निष्कृष्य सव्वहारिण पुन आद्वारस ज्योनाहं. Taken from *Jaina Maths.*, loc. cit., pp. 132-33.

‡ Thibaut: "On the Sulba-sūtras," *J.A.S.B.*, 1875, pp. 12, 13, Reprint.

§ and || N. K. Majumdar: "Mānava Sulba-sūtra," *Journal of Dept. of Letters*, Vol. 8, 1922.

¶ "Surd in Hindu Mathematics," by Gurugovinda Chakravarti.

** *Gaṇitapāda*, Verses 32 and 33.

This is the definite earliest important step in the matter of continued fraction.

But the first writer to treat it as a separate subject as a kind of fraction was Śrīdhara (750 A.D.) He has laid down the rule* “For the reduction of a chain multiply the numerator and denominator above by the denominator underneath. With the preceding numerator thus obtained make additions or subtractions with the succeeding numerator.” He calls this Valli (chain). The rule was also repeated in the Mahāsiddhānta (c. 950 A.D.)†

The above goes to show, therefore, that there is no ground for maintaining that “the modern theory of continued fraction is said to have begun with Bombolli (1572 A.D.).”‡ Its conceptions like many other sister conceptions in the matter of fraction, was the product of the Hindu brain.

On the Method of writing Fractions.

(i) *The method.*

Among astronomers and arithmeticians Gaṇeśa (1520 A.D.) remarks : “Oral instruction has taught to place the numerator above and the denominator beneath.”§ This teaching was handed down from generation to generation for exactly the same method was adopted by all the Indian mathematicians. In the *Bākshālī MS.*, we have for instance|| $1\frac{1}{2}$ for $1\frac{1}{2}$. Bhāskara wrote $\frac{2}{3}$ for $\frac{2}{3}$.¶ In case of improper fractions, the Hindus used to put the whole number over the head of the numerator and not by the side as is the practice now. In the *Bākshālī MS.* $2\frac{1}{2}$ is written

2
1, $1\frac{1}{2}$ as $\frac{1}{2}$ and there are numerous other examples.** Taylor

* *Trīṣatikā*, Rule 26.

† *Mahāsiddhānta*, XV, 18.

‡ Smith : Vol. II, p. 419.

§ Colebrook : *Algebra with Arithmetic and Mensuration from the Sanskrit of Brahmagupta and Bhāskara*, to be hereafter called *Hindu Algebra*, p. 14.

|| Folio 12 verso.

¶ Taylor : *Līlāvati*, Introd., p. 12, text, p. 24 n.

** G. R. Kaye : *Bākshālī MS.*, p. 28.

who examined a number of manuscripts of *Līlāvati* and its commentary also informs us that this was the manner of the Hindus.* The mode of writing groups of fractions is as follows :—

$$\left| \begin{array}{c|c|c|c} 1 & 1 & 1 & 1 \\ \hline 4 & 3 & 6 & 12 \end{array} \right| \text{ for } \frac{1}{4} + \frac{1}{3} + \frac{1}{6} + \frac{1}{12}$$

The expression $x(1-\frac{1}{2})(1+\frac{1}{3})(1-\frac{1}{4})(1+\frac{1}{5})$ is written as †

$$\left| \begin{array}{c} 0 \\ 1 \\ 1 \\ 2+ \\ 1 \\ 3 \\ 1 \\ 4+ \\ 1 \\ 5 \end{array} \right| \text{ or } \left| \begin{array}{ccccc} 0 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & 1 \\ & 2+ & 3 & 4+ & 5 \end{array} \right|$$

$$\text{and } \dagger \quad \left| \begin{array}{c|c|c} 1 & 1 & 1 \\ 2 & 4 & 5+ \\ & 1 & 4 \\ & 2+ & 1+ \\ & & 2 \end{array} \right| \text{ means } \frac{1}{2} + \frac{1}{4}(1-\frac{1}{2}) + \frac{1}{5}(1-\frac{1}{4})(1-\frac{1}{2}).$$

Exactly the same mode of writing groups of fractions has been followed in the works of Śrīdhara, § Prthūdak Svāmī || and Bhāskara. ¶

(ii) *Origin of this method—Kaye criticised.*

One of the modern historians of mathematics, Mr. Kaye, would like to credit the Arabs with the origin of this mode of writing fractions. Kaye remarks that this method is “peculiarly Arabic.”** This however is mostly based upon vague conjectures

* Taylor : *Līlāvati*, Introd., p. 28; Colebrook : *Hindu Algebra*, p. 15.

† *Bāk. MS.*, Folio 13, recto and verso, also 10-15.

‡ Folio 52 verso, *Bāk. MS.*

§ *Trisatikā*, Ed. Sudhākara, Benares, p. 11.

|| Colebrook : *Hindu Algebra*, p. 233 Fn. Compare also p. 15 fn.

¶ *Līlāvati*, Ed. Sudhākara, p. 6.

** *J.A.S.B.*, Beng. III (1907), pp. 502-03.

and there is, in the mathematical documents of the Hindus and the Arabs, no evidence whatever to support it. On the other hand we have ample and overwhelming testimony of Arabic writers to show that the truth is on the contrary that the Arabs learned their mode from the Hindus. Woepeke* has given some extracts from the Arabic manuscripts in the libraries of Paris and Leiden where we find a table figuring the division $2852 \div 12 = 237\frac{8}{12}$, such as it is executed by Alnaḡawi (1034 A.D.) who calls this method Indian (al-hindi). The method is :

$$\begin{array}{r}
 \cancel{1} \cancel{2} \\
 \cancel{4} \cancel{0} 8 \\
 2 \ 3 \ 7 \\
 2 \ 8 \ 5 \ 2 \\
 1 \ 2 \\
 1 \ 2 \\
 1 \ 2
 \end{array}
 \qquad
 237 \begin{array}{c} 8 \\ 12 \end{array} \left[= 237 \frac{8}{12} \right]$$

This method of writing fraction is the same as given by Ben Musā (825 A.D.). Illustrations of this notation of fractions and of complex numbers treated in the work are as follows :—

$$\frac{1}{2} \text{ is written as } 0, 13 \frac{1}{3} \text{ as } 13, 15 \frac{7}{9} \text{ as } 15, \frac{1}{11} \text{ as } 0.$$

$$\begin{array}{cccc}
 1 & 1 & 7 & 1 \\
 2 & 3 & 9 & 11
 \end{array}$$

Further, the chapter on fraction in Bk. II of the satisfaction is introduced as “on the manner of writing the fraction in Indian fashion.”

(iii) *The introduction of the Bar.*

The bar between the numerator and the denominator was never used by the Hindus. It was probably introduced by the later Arabs. There are numerous instances in the earlier MSS. to show that the Arabs at first did not use it. Even after its introduction it was not followed by all. In c. 1140 A.D. Rabbi ben Ezrā† did not use it. This mode of writing fraction then, travelled to Europe “during the Renaissance times, when the Arab devices mingled with the classical forms.” It is not that the Europeans inherited this mathematical property from their

* F. Woepeke : *Journal Asiatique*, tome 1(b), 1863, p. 498.

† Smith, II, p. 215.

intellectual ancestors, the Egyptians, Greeks or the Romans. The Egyptian, Greek or the Roman plans of writing fractions were very unsatisfactory and confusing. There is no evidence to show that they ever knew this mode of writing fractions.

Definitions and Terminology of Fractions.

The Hindu definition of fraction was more scientific than that of the others. Like the Europeans of the 15th and the 16th Century they based their definition on division but unlike them put no limitation that the division should be "usually of a smaller number by a larger"* or "the numerator must be less than the denominator."† Gapeśa defines "Bhinna," a fraction, as a divided quantity, i.e., one obtained by division.‡ Gaṅgādhara, another commentator of Bhāskara, defines it to be an incomplete quantity or non-integer (*apūrṇa*). This definition was possible as they had the conception of improper fractions which in Europe came later.§

There are two names for fraction in India. *Kalāsavarṇa* and *Bhinna*. The term *Kalāsavarṇa* is the older one and appears in our literature amongst the topics of mathematics from about 300 B.C. in a Jaina canonical work, *Sūtrakṛtāṅga*.|| *Kalāsavarṇa* is a combination of two words *Kalā* and *Savarṇa*. The word *Kalā* was originally, during the Vedic times, used in the sense of 16th part.¶ But at the end of the Vedic times it came to denote parts in general. In the *Chāndogya Upaniṣad* it is used in this sense in the expression "षोडशकलः पुरुषः" and in the *Sulba Sūtras*** "द्वितीयेन नवमी कला." The word *Savarṇa* means 'making of the same class' and is the common term in Hindu mathematics for

* Smith, II, p. 219.

† Ibid.

‡ Colebrook : *Hindu Algebra*, p. 15.

§ Smith, II, p. 219.

|| Sūtra 747 : परिकल्प्य ववहारो रज्ज् रासी कलासवर्णे य ।

जाव तावति वगो घनो त तद् वगवगो विकम्पो त ॥

¶ See ante.

** Apastamba, 4th Chapter, Rule 10.

the reduction of fractions to a common denominator. The compound word, therefore, refers to fraction in general. The use of the word was followed orthodoxically by Śīlāṅka (826 A.D.) and Mahāvīra (850 A.D.). Śrīdhara (c. 750 A.D.) used it as an alternative name. The other term was Bhinna which literally means 'broken part.' It was used by Śrīdhara, Bhāskara and others.

The Hindu terms corresponding to the numerator and denominator of Europe are the most scientific and are not like the European terms 'hardly destined to endure.'* The term numerator means 'numberer' and denominator means 'namer.' As such we find that these terms were devised from the mode of writing fraction after the Hindu fashion. This sacrifice of the sense for the manner of writing fraction in the device of terms was carried still further in the medieval and Renaissance times when they used topterme, 'top,' 'superior' for the numerator and 'base' or 'inferior' for the denominator.† But in India, the terms were quite consistent with the sense of fraction. The term corresponding to the numerator are usually 'Bhāga,' 'Amśa,' 'Vibhāga' and 'Lava' which literally means a 'part.' The terms for the denominator are 'Hāra,' 'Hara,' 'Cheda,' all of which means 'divisor.' The idea of a fraction, as involved in these terms is that unity is divided into a number of parts and some of them are taken which in fact is the proper idea of a fraction.

Reduction.

The Hindu terminology for the operation now known as reduction was 'removal' (अपवर्त्तन, वर्त्तन), i.e., removal of common factors. This term is highly suggestive and more scientific than the word 'reduction' which sometimes have the special significance of bringing fractions to a common denominator. It was just in this sense that the Hindu writers used the term reduction (Savarṇan).‡

* It was first predicted by Mr. Smith: *Hist. of Maths.*, II, p. 220.

† Smith, II, p. 220.

‡ See ante.

So also some European writers of the 15th Century.* The term 'वर्त्तन' together with or without the use of the prefix "अप" was used by the authors of the Bākshālī Manuscripts,† Jinabhadragani,‡ Brahmagupta and his commentator Prthūdak Svāmī§ Śrīdhara,|| Mahāvīra¶ and Bhāskara.**

The necessity for reduction, rather removal, was felt in India even from the time of Vedānga (1200 B.C.).†† It is found there in connection with the rule "what is passed of the northern progress and likewise what remains of the southern progress each is to be multiplied by two, divided by 61 and added to 12, this is the measure of the day" or symbolically $a \times \frac{2}{61} + 12$. Here $\frac{2}{61}$ has got no meaning if it is not $\frac{6}{183}$, where 183 is the number of days, in a half-year, the Vedānga year being of 336 days and 6 is the number of *muhūrttas* of maximum variation of the length of the day during the northern and the southern progress. The Sūrya-prajñapti also contains a number of examples two of which we cite here, $\frac{3886}{10} = \frac{1}{10}$, $\frac{2}{10} = \frac{1}{5}$.†‡ In the Tattārthādhigama Sūtra§§ we find that $\frac{100000}{199} = 526 \frac{6}{19}$. To carry out the operation of reduction, clear direction has been given by Prthūdak||| (864 A.D.) to cancel the common measure. The process of finding the greatest common measure was also known to the Hindus.¶¶

* Smith, II, 221. For example Pellos (1494 A.D.), Chejuet (1484 A.D.) and others.

† G. R. Kaye : *Bāk. MS.*, p. 30.

‡ *Bṛhat Kṣetra Samāsa* of Jinabhadragani (529-589 A.D.) with the commentary of Malayagiri, 1921, Bhāvanagara :

चउनउर सहुसाइ लखो सया

शेषे दु हक्कोवडिय दीनवाति नसससससा ॥

§ Colebrook : *Hindu Algebra*, p. 322.

|| Śrīdhara, *Trīśatikā*.

¶ *Gaṇita Sāra Saṃgraha*, p. 38.

** *Hindu Algebra*, p. 13.

†† Verse 39.

‡‡ *Mythic Soc. Journal*, Vol. XV, p. 147.

§§ Sūtras 24 and 32. Read combined.

||| Colebrook : *Hindu Algebra*, p. 322.

¶¶ *Āryabhaṭīyam* : *Gaṇitapāda*, Rules 32 and 33.

Operations.

Actual cases of operations can be traced from such early times as that of the Vedāṅga (1200 B.C.), Śulba Sūtras (800 B.C.) and Sūryaprajñapti (500 B.C.). But under the present state of researches we cannot ascertain what the rules of operations were before the early centuries of the Christian Era, *i.e.*, when the Bākshali work was written. For earlier than this we have got no mathematical work and in non-mathematical works reference to the rules cannot be expected. As to the sequence of operations the Hindu writers from the time of Bākshālī MS. and on adhered analogically to the sequence of operations in case of integers. As a preliminary to the rules of operations it can be mentioned here that the Hindus would put unity as the denominator of an integer at least from the time of Bākshālī work (early centuries of the Christian Era).* Pṛthūdak Svāmī† and Bhāskara‡ has also given the same direction.

Addition and Subtraction.

Instances of addition and subtraction are found in the Vedāṅga, Śulba Sūtras and Sūryaprajñapti. As we have already remarked we cannot ascertain what was the process, but it seems that during the time when the Jaina canons were written, they were at first reduced to a common denominator. The origin of the name Kalāsavarṇa§ at least suggests this. Owing to the difficulty of this process, the earlier mathematicians used to consider only two fractions at a time. The usual method of reducing them to a common denominator was to multiply the numerator and denominator of one fraction by the denominator of the other. The next improvement was to reduce the fractions to lowest common denominator. This was done as early as the early centuries

* G. R. Kaye : *Bāk. MS.*, pp. 28, 29, 30.

† Colebrook : *Hindu Algebra*, p. 279.

‡ Colebrook : *Hindu Algebra*, p. 15.

§ See *ante*.

of the Christian Era, when the Bākshālī work was composed. We have several instances of its use in the work :—

(1) To find the sum* of $\frac{2}{1}$, $1\frac{1}{2}$, $1\frac{1}{3}$, $1\frac{1}{4}$, $1\frac{1}{5}$ they are at first reduced to a common denominator so as to become $\frac{120}{60}$, $\frac{90}{60}$, $\frac{80}{60}$, $\frac{75}{60}$, $\frac{72}{60}$

(2) In finding the sum of $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$, $\frac{4}{5}$, it is stated that the sum after having been reduced to a common denominator will be $\frac{163}{60}$.†

(3) The result of $\frac{13\frac{1}{2}}{3\frac{1}{2}} + \frac{13-\frac{1}{4}}{8\frac{1}{2}} + \frac{1\frac{1}{3}}{3\frac{1}{3}} + \frac{\frac{1}{2}}{1\frac{1}{2}} + \frac{1}{5\frac{1}{3}} + \frac{2\frac{1}{4}}{5} + \frac{12\frac{1}{2}}{33\frac{1}{3}}$ has been correctly obtained as $\frac{1807}{40}$. ‡

Although the plan was discovered yet it was very slow of acceptance. Brahmagupta (628 A.D.) and Śrīdhara (750 A.D.) did not know it and followed the crude method. But Mahāvīra (850 A.D.) knew the method of reducing two fractions to a common denominator. Furthermore in his Gaṇita Sāra Saṁgraha, we find for the first time, the definite formulation of a rule for treating more than two fractions at a time. Mahāvīra shows how to reduce them to the least common denominator all at the same time. He calls it 'nirudha.' He says §

“ The nirudha (or the L.C.M.) is obtained by means of the continued multiplication of (all) the (possible) common factors of the denominators and (all) their ultimate quotients. In the case of (all) such multiples of the denominators and the numerators of the given fraction as are obtained by multiplying those (denominators and numerators) by means of the quotients derived from the division of the nirudha by the (respective) denominators, the denominators become equal (in value).” The method of finding the L.C.M. was also probably known to Pṛthūdak Svāmī (864

* Folio 1, Verso.

† Folio 17, Recto.

‡ Folio 43, Recto and verso; 44, Recto. Also 95 of Bāk. MS. The MS. is erroneous here. So is also Kaye's transliteration. This was amended by Dr. Datta—Bāk. Maths., Bull. Cal. Math. Soc., XXI, p. 19.

§ Gaṇita Sāra Saṁgraha, VII, 55, pp. 50-51.

A.D.).* He has given the rule : “ Divide both the denominators by the remainder (or the last result) of the reciprocal division of the two and multiply by the two quotients the reversed denominators with their quotients.”† But he was not satisfied with the process and suggested that “ other methods may be similarly devised by their own ingenuity.” But Bhāskara (1150 A.D.) coming even after them did not recognise it.

The presence of the principle of L.C.M. in the Bākshālī work apparently represents a more advanced stage of mathematical knowledge than the work of Brahmagupta (628 A.D.). This lends some support to Kaye’s view that it belonged to the 12th Century of the Christian Era and opposes Dr. Datta’s, who after examining the mathematical contents of the work referred it to a stage in the growth and development of Hindu mathematics before the classical writers of and from the 5th Century A.D. But much importance should not be given to a solitary instance. Further even in later times we find that Bhāskara did not use the principle though it was already known to Mahāvīra and Pṛthūdak who were his predecessors. A parallel instance of this state of affairs can be pointed out from the History of European Mathematics. “ Although the plan of reducing to the least common denominator before adding or subtracting was occasionally used by the 15th and 16th Century arithmeticians, it was not until the 17th Century that it began to be generally recognised and even then the name was slow of acceptance.‡

The process for multiplication was the same as at present, i.e., to multiply the numerators and denominators.

* Hitherto it was known that Pṛthūdak was a man of the late 10th Century. But from a torn MS. of his commentary on the Khaṇḍakhādyakaraṇa of Brahmagupta preserved in the library of the Calcutta University, it is known that he was living in 864 A.D. Amrāj another commentator of the same work informs us that he was alive in 878 A.D. ख स अष्टसंख्यक शक्ति चतुर्वेदाचार्य पृथुदक्खामिना साई षट् दृष्टा इति ।

† Colebrook : *Hindu Algebra*, p. 281.

‡ Smith, II, p. 223.

Division.

In the matter of division of a fraction by an integer, numerous instances can be cited from the *Sūryaprajñapti** and Kautilya's *Arthaśāstra*.† But in the case of division by another fraction the instances are very rare. We have only one instance in the *Sūryaprajñapti*.‡

$$1 \text{ muhūrta} = \frac{61}{60} \text{ division.}$$

$$\therefore 1 \text{ division} = \frac{60}{61} \text{ muhūrta.}$$

Though no definite formulation of the rule of division is found in these works, yet it seems that the process followed was substantially the same as that of multiplication by the inverted fraction. We

have§
$$47263 \frac{21}{60} \div 549 = 86 \frac{5}{60} + \frac{24}{61 \times 60}$$

(549 cancelled by 9 has given 61).

Amongst other nations instances of division by fraction are found only amongst the Chinese as early as the 2nd Century B.C. in the *Chiu-Chang-Suan-Shu*.|| In India the rules are however definitely formulated for the first time by Brahmagupta. He gives the rule in the following words:¶ “Both terms being homogeneous, the denominator and numerator of the divisor are transposed and then the denominator of the dividend is multiplied by the (new) denominator; and its numerator, by the (new) numerator. Thus division is (performed).”

Square, Cube, Square-root and Cube-root.

We had already occasions to see that instances of squaring of the fractions occur in the *Sūlba Sūtras*.** The square of $\frac{1}{2}$ is

* *Sūtra* 23.

† Trans. of Shamasāstry, p. 206. “In the absence of quadrupeds the eldest son shall take an additional share of $\frac{1}{4}$ th of the whole property.”

‡ *Sūtra* 11.

§ *Sūryaprajñapti*, *Sūtra* 23.

|| Mikāmi : *China*, p. 2.

¶ Colebrook : *Hindu Algebra*, pp. 278-79.

** *Āpastamba*, Ch. 4, Rule 10; also see *ante*.

“अर्द्धप्रमाणेन पदप्रमाणम् विधिपनेरर्द्धम्

प्रमाणया पदपूरनत्वात् तृतीयेन नवमी कला ।”

correctly given as $\frac{1}{4}$ and that of $\frac{1}{3}$ as $\frac{1}{9}$. Brahmagupta (628 A.D.) states the rule for finding the square and square-root of fractions. He says : * “ The quantity being made homogeneous the square of the numerator divided by the square of the denominator, is the square. The root of the homogeneous numerator divided by the root of the denominator is the square-root.” Brahmagupta’s commentator Prthūdak Svāmī (864 A.D.) gives the rule for finding the cube and cube-root. The rule is † “ For the cube of fractions, let the cube of the numerator after the quantity has been rendered homogeneous and the cube of the denominator, be separately computed and divide one by the other ; the quotient is the cube sought. For the cube-root, let the roots be separately extracted and then divide the cube-root of the numerator by that of the denominator ; the quotient is the cube-root of the fraction.”

Brahmagupta gave another approximate rule for finding the square of a quantity that includes minutes of a degree. His rule is : ‡ “ The integer multiplied by the part of the sixtieth division of itself, belonging thereto, and divided by thirty is the square of the whole degrees.”

The rule has been expressed more generally by Prthūdak.§ He says : “ The integer multiplied by the numerator of its attendant fraction, which has a given denominator, being divided by (half) its denominator, is to be added to the square of the integer portion.”

The rationale of the rule lies in the application of the formula $(a+b)^2 = a^2 + 2ab + b^2$ where b^2 is neglected being small.

It has truly been observed by Prthūdak Svāmī that the method gives the square grossly, being less than the truth by the product of minutes by minutes.||

* Colebrook : *Hindu Algebra*, p. 279.

† *Ibid*, p. 281.

‡ Colebrook : *Hindu Algebra*, p. 322; *Brahmasphuṭa Siddhānta*, Ed. Sudhākara Dvivedī, XII, 10.62.

§ *Ibid*.

|| Colebrook could not understand the proper import of this rule. He thought it to be a case of sexagesimal fraction. But it is not so as it is not the case of an abstract fraction but is really a concrete case. This note of Colebrook, as it seems, exercised a

Classification of Fraction.

The Hindus classified the fractions into different classes. But all the authors were not unanimous as regards the number of classes. From a stray reference in the Bākshālī* work we understand that its author delivered five classes. Āryabhaṭa did not give any classification in his short compendium. Skandha Sena and others taught six classes while Brahmagupta gave five classes : —(1) Reduction to homogeneousness, *i.e.*, addition and subtraction, (2) Multiplication, (3) Division, (4) Fractional increase (bhāgānuband Jāti), (5) Fractional decrease (Bhāgāpavāhu-Jāti). His scholiast Prthūdak Svāmī accounts for Brahmagupta's omissions of the sixth class as it consist of the rest and is therefore virtually taught.† Śrīdhara gave no less than eight including rules answering to the arithmetic of fractions.‡ Mahāvīra§ followed Skandha Sena and others in giving six classes which he names as (1) Bhāga (simple fraction), (2) Prabhāga (fraction of fractions), (3) Bhāga-bhāga (complex fractions), (4) Bhāgānuband, (5) Bhāgāpavāha and finally (6) Bhāgamātr, *i.e.*, fractions consisting of two or more of above. Finally he has stated that there are 26 of the sixth class.|| Bhāskara¶ however reduced the number to four. His classification was Bhāga Jāti, Prabhāga Jāti, Bhāgānuband and Bhāgāpavāha. Following Bhāskara his commentator Gaṇeśa made an attempt to reduce the number to two only on the ground that Bhāgānuband and Bhāgāpavāha Jātis are sorts of addition and subtraction.** He was again of this opinion that if the above two are to be regarded as distinct classes they may

great influence upon the subsequent historians of mathematics. Kaye too made a similar misrepresentation. It has been already pointed out by Dr. Datta in his article on the "Bākshālī Mathematics," *Bull. Cal. Math. Soc.*, XXI, pp. 41-43.

* Bāk. MS., Folio 52 verso.

† Colebrook : *Hindu Algebra*, p. 283.

‡ Ibid, p. 15. *Trīśatikā*, pp. 10-12.

§ *Gaṇita Sāra Saṃgraha*, p. 50.

|| Ibid, p. 69.

¶ *Līlāvati*, Ch. II, Sec. iii.

** Colebrook : *Hindu Algebra*, p. 15.

be sub-divided further. Thus Bhāgānuband into Rūpa Bhāgānuband and Rāśi Bhāgānuband and Bhāgāpavāha Jāti into Rūpa and Rāśi. The prefix Rūpa is used when addition or subtraction is of a fraction of an unit. The prefix Rāśi is used when it is the fraction of the quantity.*

* Colebrook : *Hindu Algebra*, p. 13.

